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Lee, Judithann M.
Smith, Randall F.
White, John R.

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65      70      75      80
Ser Tyr Phe Gly Thr Asp Lys Ile Thr Arg Ile Asn Ile Ala Gly Trp
85      90      95
Lys Thr Asp Gly Lys Trp Gln Arg Asp Met Cys Asn Val Leu Leu Gln
100     105     110
Leu Glu Asp Ile Asn Cys Ile Asn Leu Asp Trp Ile Asn Gly Ser Arg
115     120     125
Glu Tyr Ile His Ala Val Asn Asn Leu Arg Val Val Gly Ala Glu Val
130     135     140
Ala Tyr Phe Ile Asp Val Leu Met Lys Lys Phe Glu Tyr Ser Pro Ser
145     150     155     160
Lys Val His Leu Ile Gly His Ser Leu Gly Ala His Leu Ala Gly Glu
165     170     175
Ala Gly Ser Arg Ile Pro Gly Leu Gly Arg Ile Thr Gly Leu Asp Pro
180     185     190
Ala Gly Pro Phe Phe His Asn Thr Pro Lys Glu Val Arg Leu Asp Pro
195     200     205
Ser Asp Ala Asn Phe Val Asp Val Ile His Thr Asn Ala Ala Arg Ile
210     215     220
Leu Phe Glu Leu Gly Val Gly Thr Ile Asp Ala Cys Gly His Leu Asp
225     230     235     240
Phe Tyr Pro Asn Gly Gly Lys His Met Pro Gly Cys Glu Asp Leu Ile
245     250     255
Thr Pro Leu Leu Lys Phe Asn Phe Asn Ala Tyr Lys Lys Glu Met Ala
260     265     270
Ser Phe Phe Asp Cys Asn His Ala Arg Ser Tyr Gln Phe Tyr Ala Glu
275     280     285
Ser Ile Leu Asn Pro Asp Ala Phe Ile Ala Tyr Pro Cys Arg Ser Tyr
290     295     300
Thr Ser Phe Lys Ala Gly Thr Cys Val Gly Cys Ala Asp Leu Leu His
305     310     315     320

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Arg	Ile	Asp	Lys	Ile	Gly	Ser	His	Thr	Ser	His	Val	Phe	Leu	Thr	Leu	
				325						330					335	
Ser	Leu	Pro	Phe	Leu	Leu	Val	Ser	Leu	Tyr	Leu	Gly	Trp	Arg	His	Lys	
			340					345					350			
Leu	Ser	Val	Lys	Leu	Ser	Gly	Ser	Glu	Val	Thr	Gln	Gly	Thr	Val	Phe	
			355				360					365				
Leu	Arg	Val	Gly	Gly	Ala	Val	Arg	Lys	Thr	Gly	Glu	Phe	Ala	Ile	Val	
	370					375					380					
Ser	Gly	Lys	Leu	Glu	Pro	Gly	Met	Thr	Tyr	Thr	Lys	Leu	Ile	Asp	Ala	
385					390					395					400	
Asp	Val	Asn	Val	Gly	Asn	Ile	Thr	Ser	Val	Gln	Phe	Ile	Trp	Lys	Lys	
				405				410						415		
His	Leu	Phe	Glu	Asp	Ser	Gln	Asn	Lys	Leu	Gly	Ala	Glu	Met	Val	Ile	
			420				425						430			
Asn	Thr	Ser	Gly	Lys	Tyr	Gly	Tyr	Lys	Ser	Thr	Phe	Cys	Ser	Gln	Asp	
		435				440						445				
Ile	Met	Gly	Pro	Asn	Ile	Leu	Gln	Asn	Leu	Lys	Pro	Cys				
	450					455					460					

<210> 24
 <211> 308
 <212> PRT
 <213> Homo sapiens

<400> 24

Met	Pro	Phe	Leu	Gln	Leu	Lys	Gly	Arg	Ala	Thr	Pro	Pro	Ser	Trp	Arg	
1				5					10					15		
His	Asp	Ser	Arg	Ser	Leu	Val	His	Leu	Leu	Asp	Gly	Lys	Glu	Gly	Val	
			20					25					30			
Trp	Asp	Thr	Thr	Gly	Tyr	Ala	Leu	Gly	Ser	Arg	Glu	Ser	Leu	Asn	Pro	
		35				40						45				
Asp	Met	Gly	Ile	Gly	Asp	Pro	His	Gly	His	Ser	Thr	Val	His	Thr	Arg	
	50				55					60						
Glu	Ala	Gly	Thr	Ala	Cys	Pro	Leu	Gln	Leu	Leu	Gly	Ala	Arg	Glu	Ala	
65					70				75						80	
Ser	Leu	Leu	Ala	Cys	Gly	Ile	Cys	Gln	Ala	Ser	Gly	Gln	Ile	Phe	Ile	
			85					90					95			
Thr	Gln	Thr	Leu	Gly	Ile	Lys	Gly	Tyr	Arg	Thr	Val	Val	Ala	Leu	Asp	
			100				105						110			
Lys	Val	Pro	Glu	Asp	Val	Gln	Glu	Tyr	Ser	Trp	Tyr	Trp	Gly	Ala	Asn	
		115				120						125				
Asp	Ser	Ala	Gly	Asn	Met	Ile	Ile	Ser	His	Lys	Pro	Pro	Ser	Ala	Gln	
	130				135						140					
Gln	Pro	Gly	Pro	Met	Tyr	Thr	Gly	Arg	Glu	Arg	Val	Asn	Arg	Glu	Gly	
145				150					155					160		
Ser	Leu	Leu	Ile	Arg	Pro	Thr	Ala	Leu	Asn	Asp	Thr	Gly	Asn	Tyr	Thr	
			165					170					175			
Val	Arg	Val	Val	Ala	Gly	Asn	Glu	Thr	Gln	Arg	Ala	Thr	Gly	Trp	Leu	
			180				185						190			
Glu	Val	Leu	Asp	Gly	Pro	Asp	Tyr	Val	Leu	Leu	Arg	Ser	Asn	Pro	Asp	
		195				200						205				
Asp	Phe	Asn	Gly	Ile	Val	Thr	Ala	Glu	Ile	Gly	Ser	Gln	Val	Glu	Met	
	210				215						220					
Glu	Cys	Ile	Cys	Tyr	Ser	Phe	Leu	Asp	Leu	Lys	Tyr	His	Trp	Ile	His	
225					230					235					240	

Asn	Gly	Ser	Leu	Leu	Asn	Phe	Ser	Asp	Ala	Lys	Met	Asn	Leu	Ser	Ser	
				245					250					255		
Leu	Ala	Trp	Glu	Gln	Met	Gly	Arg	Tyr	Arg	Cys	Thr	Val	Glu	Asn	Pro	
			260					265					270			
Val	Thr	Gln	Leu	Ile	Met	Tyr	Met	Asp	Val	Arg	Ile	Gln	Ala	Pro	His	
		275				280						285				
Glu	Cys	Ser	Ser	Ser	Pro	Pro	Gly	Ser	Cys	Phe	Ala	His	Leu	Pro	Ala	
	290					295					300					
Ser	Met	Pro	Cys													
305																

<210> 25
 <211> 457
 <212> PRT
 <213> Homo sapiens

<400> 25

Met	Asp	Leu	Ser	Arg	Pro	Arg	Trp	Ser	Leu	Trp	Arg	Arg	Val	Phe	Leu	
1				5					10					15		
Met	Ala	Ser	Leu	Ala	Cys	Gly	Ile	Cys	Gln	Ala	Ser	Gly	Gln	Ile		
			20				25					30				
Phe	Ile	Thr	Gln	Thr	Leu	Gly	Ile	Lys	Gly	Tyr	Arg	Thr	Val	Val	Ala	
		35				40					45					
Leu	Asp	Lys	Val	Pro	Glu	Asp	Val	Gln	Glu	Tyr	Ser	Trp	Tyr	Trp	Gly	
	50				55					60						
Ala	Asn	Asp	Ser	Ala	Gly	Asn	Met	Ile	Ile	Ser	His	Lys	Pro	Pro	Ser	
65				70					75						80	
Ala	Gln	Gln	Pro	Gly	Pro	Met	Tyr	Thr	Gly	Arg	Glu	Arg	Val	Asn	Arg	
			85						90					95		
Glu	Gly	Ser	Leu	Leu	Ile	Arg	Pro	Thr	Ala	Leu	Asn	Asp	Thr	Gly	Asn	
		100					105						110			
Tyr	Thr	Val	Arg	Val	Val	Ala	Gly	Asn	Glu	Thr	Gln	Arg	Ala	Thr	Gly	
	115					120					125					
Trp	Leu	Glu	Val	Leu	Glu	Leu	Gly	Ser	Asn	Leu	Gly	Ile	Ser	Val	Asn	
	130				135					140						
Ala	Ser	Ser	Leu	Val	Glu	Asn	Met	Asp	Ser	Val	Ala	Ala	Asp	Cys	Leu	
145				150					155						160	
Thr	Asn	Val	Thr	Asn	Ile	Thr	Trp	Tyr	Val	Asn	Asp	Val	Pro	Thr	Ser	
			165					170					175			
Ser	Ser	Asp	Arg	Met	Thr	Ile	Ser	Pro	Asp	Gly	Lys	Thr	Leu	Val	Ile	
		180					185						190			
Leu	Arg	Val	Ser	Arg	Tyr	Asp	Arg	Thr	Ile	Gln	Cys	Met	Ile	Glu	Ser	
	195					200						205				
Phe	Pro	Glu	Ile	Phe	Gln	Arg	Ser	Glu	Arg	Ile	Ser	Leu	Thr	Val	Ala	
	210				215					220						
Tyr	Gly	Pro	Asp	Tyr	Val	Leu	Leu	Arg	Ser	Asn	Pro	Asp	Asp	Phe	Asn	
225				230					235						240	
Gly	Ile	Val	Thr	Ala	Glu	Ile	Gly	Ser	Gln	Val	Glu	Met	Glu	Cys	Ile	
			245					250						255		
Cys	Tyr	Ser	Phe	Leu	Asp	Leu	Lys	Tyr	His	Trp	Ile	His	Asn	Gly	Ser	
		260					265						270			
Leu	Leu	Asn	Phe	Ser	Asp	Ala	Lys	Met	Asn	Leu	Ser	Ser	Leu	Ala	Trp	
		275				280						285				
Glu	Gln	Met	Gly	Arg	Tyr	Arg	Cys	Thr	Val	Glu	Asn	Pro	Val	Thr	Gln	
	290					295					300					

Leu	Ile	Met	Tyr	Met	Asp	Val	Arg	Ile	Gln	Ala	Pro	His	Glu	Cys	Pro
305					310					315					320
Leu	Pro	Ser	Gly	Ile	Leu	Pro	Val	Val	His	Arg	Asp	Phe	Ser	Ile	Ser
			325						330					335	
Gly	Ser	Met	Val	Met	Phe	Leu	Ile	Met	Leu	Thr	Val	Leu	Gly	Gly	Val
			340					345					350		
Tyr	Ile	Cys	Gly	Val	Leu	Ile	His	Ala	Leu	Ile	Asn	His	Tyr	Ser	Ile
		355					360					365			
Arg	Cys	Pro	His	Cys	Ser	Gly	Thr	Arg	Val	Gly	Cys	Trp	Leu	Gly	Ala
	370					375					380				
Gly	Thr	Gln	Glu	Pro	Ala	Leu	Pro	Pro	Glu	Gly	Lys	Gln	Ser	Gln	Lys
385					390					395					400
Gly	Arg	Asp	Lys	Pro	Gly	Thr	Arg	Leu	Ser	Gly	Ile	Ile	Trp	Gly	Arg
			405						410					415	
Gln	Ile	Ser	Pro	Gln	Asp	Leu	Lys	Leu	Met	Gly	Ala	Arg	Glu	Gly	Leu
			420					425					430		
Glu	Ser	Ala	Met	Val	Leu	Asn	Ser	Cys	Gly	Val	Ser	Ser	Ser	Asn	Phe
		435					440					445			
Pro	Ser	Leu	Cys	Val	Tyr	Lys	Gly	Tyr							
	450					455									

<210> 26
 <211> 704
 <212> PRT
 <213> Homo sapiens

<400> 26

Met	Leu	His	Asp	Gly	Leu	Thr	Ala	Pro	Asp	Gly	Cys	Gly	Ile	Tyr	Ser
1				5					10					15	
Leu	Thr	Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	Gly	Leu	Gly	Thr	Ala
			20					25					30		
Ala	Ala	Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys	Gln	Cys	Asp	Leu	Leu
		35				40						45			
Lys	Leu	Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	Arg	Glu	Pro	Gly	Leu
	50					55				60					
Ala	Glu	Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	Leu	Leu	Glu	Cys	Gln
65					70					75					80
Phe	Gln	Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	Leu	Glu	Gly	Arg	Met
			85					90						95	
Gly	Leu	Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	Phe	Leu	Tyr	Ala	Val
			100				105						110		
Ser	Ser	Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	Ala	Cys	Ser	Ala	Gly
		115					120					125			
Arg	Met	Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	Gly	Leu	Glu	Ser	Arg
	130					135					140				
Gln	Ala	Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	Leu	Lys	Tyr	Ser	Thr
145					150				155						160
Lys	Phe	Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	Gly	Asn	Lys	Asp	Leu
			165						170					175	
Arg	Ala	Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	Gly	Ile	Lys	Ala	Val
			180					185					190		
Lys	Ser	Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	Gly	Val	Ser	Gly	Ser
		195					200					205			
Cys	Ala	Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	Pro	Phe	Arg	Glu	Thr
	210					215					220				

Gly	Gln	Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	Val	Lys	Val	Ser	Ser	
225					230					235					240	
Ala	Thr	Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	Trp	Ala	Pro	Ala	Arg	
				245					250					255		
Gln	Gly	Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	Ser	Gly	Asp	Leu	Val	
			260					265					270			
Tyr	Met	Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	Ser	Lys	Tyr	Ser	Pro	
		275					280					285				
Gly	Thr	Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	Ser	Cys	Ser	Ser	Leu	
	290					295					300					
Cys	Cys	Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	Leu	Val	Ala	Phe	Ser	
305					310					315					320	
Cys	His	Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val	Glu	Cys	Gln	Gln	Cys	
				325					330					335		
Val	Gln	Glu	Glu	Leu	Val	Tyr	Thr	Cys	Lys	His	Ala	Met	Gly	Pro	Val	
			340					345					350			
Gly	Phe	Pro	Arg	Gln	Cys	Gln	Gly	Ala	Phe	Phe	Glu	Ser	Ser	Pro	Gly	
		355					360					365				
Gln	Thr	Arg	Ala	Arg	Leu	Thr	Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	
	370					375					380					
Gly	Leu	Gly	Thr	Ala	Ala	Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys		
385					390				395					400		
Gln	Cys	Asp	Leu	Leu	Lys	Leu	Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	
				405					410					415		
Arg	Glu	Pro	Gly	Leu	Ala	Glu	Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	
			420					425					430			
Leu	Leu	Glu	Cys	Gln	Phe	Gln	Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	
		435					440					445				
Leu	Glu	Gly	Arg	Met	Gly	Leu	Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	
	450					455					460					
Phe	Leu	Tyr	Ala	Val	Ser	Ser	Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	
465					470					475					480	
Ala	Cys	Ser	Ala	Gly	Arg	Met	Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	
				485					490					495		
Gly	Leu	Glu	Ser	Arg	Gln	Ala	Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	
			500					505					510			
Leu	Lys	Tyr	Ser	Thr	Lys	Phe	Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	
		515					520					525				
Gly	Asn	Lys	Asp	Leu	Arg	Ala	Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	
	530					535					540					
Gly	Ile	Lys	Ala	Val	Lys	Ser	Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	
545					550				555						560	
Gly	Val	Ser	Gly	Ser	Cys	Ala	Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	
				565					570					575		
Pro	Phe	Arg	Glu	Thr	Gly	Gln	Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	
			580					585					590			
Val	Lys	Val	Ser	Ser	Ala	Thr	Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	
		595					600					605				
Trp	Ala	Pro	Ala	Arg	Gln	Gly	Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	
	610					615					620					
Ser	Gly	Asp	Leu	Val	Tyr	Met	Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	
625					630					635					640	
Ser	Lys	Tyr	Ser	Pro	Gly	Thr	Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	
				645					650					655		
Ser	Cys	Ser	Ser	Leu	Cys	Cys	Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	
			660					665					670			

Leu	Val	Ala	Phe	Ser	Cys	His	Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val
		675					680					685			
Glu	Cys	Gln	Gln	Cys	Val	Gln	Glu	Glu	Leu	Val	Tyr	Thr	Cys	Lys	His
	690					695					700				

<210> 27
 <211> 361
 <212> PRT
 <213> Homo sapiens

<400> 27

Met	Lys	Pro	Leu	Arg	Arg	Pro	Leu	Pro	Phe	Ile	Cys	Pro	Ser	Pro	Pro
1				5					10					15	
Ser	Pro	Arg	Leu	Thr	Cys	Leu	Pro	Pro	Leu	Ala	Leu	Ser	Ser	Leu	Thr
			20					25					30		
Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	Gly	Leu	Gly	Thr	Ala	Ala	Ala
		35					40					45			
Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys	Gln	Cys	Asp	Leu	Leu	Lys	Leu
	50					55					60				
Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	Arg	Glu	Pro	Gly	Leu	Ala	Glu
65					70					75					80
Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	Leu	Leu	Glu	Cys	Gln	Phe	Gln
			85						90					95	
Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	Leu	Glu	Gly	Arg	Met	Gly	Leu
			100					105					110		
Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	Phe	Leu	Tyr	Ala	Val	Ser	Ser
		115					120					125			
Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	Ala	Cys	Ser	Ala	Gly	Arg	Met
	130					135					140				
Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	Gly	Leu	Glu	Ser	Arg	Gln	Ala
145					150					155					160
Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	Leu	Lys	Tyr	Ser	Thr	Lys	Phe
			165						170					175	
Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	Gly	Asn	Lys	Asp	Leu	Arg	Ala
		180						185					190		
Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	Gly	Ile	Lys	Ala	Val	Lys	Ser
		195					200					205			
Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	Gly	Val	Ser	Gly	Ser	Cys	Ala
	210					215					220				
Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	Pro	Phe	Arg	Glu	Thr	Gly	Gln
225					230					235					240
Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	Val	Lys	Val	Ser	Ser	Ala	Thr
			245						250					255	
Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	Trp	Ala	Pro	Ala	Arg	Gln	Gly
		260						265					270		
Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	Ser	Gly	Asp	Leu	Val	Tyr	Met
		275					280					285			
Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	Ser	Lys	Tyr	Ser	Pro	Gly	Thr
	290					295					300				
Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	Ser	Cys	Ser	Ser	Leu	Cys	Cys
305					310					315					320
Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	Leu	Val	Ala	Phe	Ser	Cys	His
			325						330					335	
Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val	Glu	Cys	Gln	Gln	Cys	Val	Gln
			340					345					350		

Glu Glu Leu Val Tyr Thr Cys Lys His
 355 360

<210> 28
 <211> 365
 <212> PRT
 <213> Homo sapiens

<400> 28
 Met Trp Leu Leu Leu Thr Thr Thr Cys Leu Ile Cys Gly Thr Leu Asn
 1 5 10 15
 Ala Gly Gly Phe Leu Asp Leu Glu Asn Glu Val Asn Pro Glu Val Trp
 20 25 30
 Met Asn Thr Ser Glu Ile Ile Ile Tyr Asn Gly Tyr Pro Ser Glu Glu
 35 40 45
 Tyr Glu Val Thr Thr Glu Asp Gly Tyr Ile Leu Leu Val Asn Arg Ile
 50 55 60
 Pro Tyr Gly Arg Thr His Ala Arg Ser Thr Ala Asp Ala Gly Tyr Asp
 65 70 75 80
 Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Arg His Lys
 85 90 95
 Thr Leu Ser Glu Thr Asp Glu Lys Phe Trp Ala Phe Ser Phe Asp Glu
 100 105 110
 Met Ala Lys Tyr Asp Leu Pro Gly Val Ile Asp Phe Ile Val Asn Lys
 115 120 125
 Thr Gly Gln Glu Lys Leu Tyr Phe Ile Gly His Ser Leu Gly Thr Thr
 130 135 140
 Ile Gly Phe Val Ala Phe Ser Thr Met Pro Glu Leu Ala Gln Arg Ile
 145 150 155 160
 Lys Met Asn Phe Ala Leu Gly Pro Thr Ile Ser Phe Lys Tyr Pro Thr
 165 170 175
 Gly Ile Phe Thr Arg Phe Phe Leu Leu Pro Asn Ser Ile Ile Lys Ala
 180 185 190
 Val Phe Gly Thr Lys Gly Phe Phe Leu Glu Asp Lys Lys Thr Lys Ile
 195 200 205
 Ala Ser Thr Lys Ile Cys Asn Asn Lys Ile Leu Trp Leu Ile Cys Ser
 210 215 220
 Glu Phe Met Ser Leu Trp Ala Gly Ser Asn Lys Lys Asn Met Asn Gln
 225 230 235 240
 Ser Arg Met Asp Val Tyr Met Ser His Ala Pro Thr Gly Ser Ser Val
 245 250 255
 His Asn Ile Leu His Ile Lys Gln Leu Tyr His Ser Asp Glu Phe Arg
 260 265 270
 Ala Tyr Asp Trp Gly Asn Asp Ala Asp Asn Met Lys His Tyr Asn Gln
 275 280 285
 Ser His Pro Pro Ile Tyr Asp Leu Thr Ala Met Lys Val Pro Thr Ala
 290 295 300
 Ile Trp Ala Gly Gly His Asp Val Leu Val Thr Pro Gln Asp Val Ala
 305 310 315 320
 Arg Ile Leu Pro Gln Ile Lys Ser Leu His Tyr Phe Lys Leu Leu Pro
 325 330 335
 Asp Trp Asn His Phe Asp Phe Val Trp Gly Leu Asp Ala Pro Gln Arg
 340 345 350
 Met Tyr Ser Glu Ile Ile Ala Leu Met Lys Ala Tyr Ser
 355 360 365

<210> 29
 <211> 397
 <212> PRT
 <213> Homo sapiens

<400> 29

Met	Trp	Gln	Leu	Leu	Ala	Ala	Ala	Cys	Trp	Met	Leu	Leu	Leu	Gly	Ser
1				5					10					15	
Met	Tyr	Gly	Tyr	Asp	Lys	Lys	Gly	Asn	Asn	Ala	Asn	Pro	Glu	Ala	Asn
			20					25					30		
Met	Asn	Ile	Ser	Gln	Ile	Ile	Ser	Tyr	Trp	Gly	Tyr	Pro	Tyr	Glu	Glu
		35					40					45			
Tyr	Asp	Val	Thr	Thr	Lys	Asp	Gly	Tyr	Ile	Leu	Gly	Ile	Tyr	Arg	Ile
	50					55					60				
Pro	His	Gly	Arg	Gly	Cys	Pro	Gly	Arg	Thr	Ala	Pro	Lys	Pro	Ala	Val
65					70					75					80
Tyr	Leu	Gln	His	Gly	Leu	Ile	Ala	Ser	Ala	Ser	Asn	Trp	Ile	Cys	Asn
				85					90					95	
Leu	Pro	Asn	Asn	Ser	Leu	Ala	Phe	Leu	Leu	Ala	Asp	Ser	Gly	Tyr	Asp
			100					105					110		
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Lys	Leu	Ser	Pro	Lys	Ser	Pro	Glu	Tyr	Trp	Ala	Phe	Ser	Leu	Asp	Glu
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Met	Ala	Lys	Tyr	Asp	Leu	Pro	Ala	Thr	Ile	Asn	Phe	Ile	Ile	Glu	Lys
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			165					170						175	
Ile	Ala	Phe	Ile	Ala	Phe	Ser	Thr	Asn	Pro	Glu	Leu	Ala	Lys	Lys	Ile
			180					185					190		
Lys	Ile	Phe	Phe	Ala	Leu	Ala	Pro	Val	Val	Thr	Val	Lys	Tyr	Thr	Gln
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Ser	Pro	Met	Lys	Lys	Leu	Thr	Thr	Leu	Ser	Arg	Arg	Val	Val	Lys	Val
	210					215					220				
Leu	Phe	Gly	Asp	Lys	Met	Phe	His	Pro	His	Thr	Leu	Phe	Asp	Gln	Phe
225					230					235					240
Ile	Ala	Thr	Lys	Val	Cys	Asn	Arg	Lys	Leu	Phe	Arg	Arg	Ile	Cys	Ser
			245					250						255	
Asn	Phe	Leu	Phe	Thr	Leu	Ser	Gly	Phe	Asp	Pro	Gln	Asn	Leu	Asn	Met
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Ser	Arg	Leu	Asp	Val	Tyr	Leu	Ser	His	Asn	Pro	Ala	Gly	Thr	Ser	Val
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Gln	Asn	Met	Leu	His	Trp	Ala	Gln	Leu	Tyr	His	Ser	Asp	Glu	Phe	Arg
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Ala	Tyr	Asp	Trp	Gly	Asn	Asp	Ala	Asp	Asn	Met	Lys	His	Tyr	Asn	Gln
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Ser	His	Pro	Pro	Ile	Tyr	Asp	Leu	Thr	Ala	Met	Lys	Val	Pro	Thr	Ala
			325						330					335	
Ile	Trp	Ala	Gly	Gly	His	Asp	Val	Leu	Val	Thr	Pro	Gln	Asp	Val	Ala
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Arg	Ile	Leu	Pro	Gln	Ile	Lys	Ser	Leu	His	Tyr	Phe	Lys	Leu	Leu	Pro
		355					360					365			
Asp	Trp	Asn	His	Phe	Asp	Phe	Val	Trp	Gly	Leu	Asp	Ala	Pro	Gln	Arg
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 <212> PRT
 <213> Homo sapiens

<400> 30

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Ala	Arg	Ala	Arg	Glu	Glu	Ala	Gly	Gly	Gly	Phe	Ser	Leu	His	Pro	Pro	35	40	45	
Tyr	Phe	Asn	Leu	Ala	Glu	Gly	Ala	Arg	Ile	Ala	Ala	Ser	Ala	Thr	Cys	50	55	60	
Gly	Glu	Glu	Ala	Pro	Ala	Arg	Gly	Ser	Pro	Arg	Pro	Thr	Glu	Asp	Leu	65	70	75	80
Tyr	Cys	Lys	Leu	Val	Gly	Gly	Pro	Val	Ala	Gly	Gly	Asp	Pro	Asn	Gln	85	90	95	
Thr	Ile	Arg	Gly	Gln	Tyr	Cys	Asp	Ile	Cys	Thr	Ala	Ala	Asn	Ser	Asn	100	105	110	
Lys	Ala	His	Pro	Ala	Ser	Asn	Ala	Ile	Asp	Gly	Thr	Glu	Arg	Trp	Trp	115	120	125	
Gln	Ser	Pro	Pro	Leu	Ser	Arg	Gly	Leu	Glu	Tyr	Asn	Glu	Val	Asn	Val	130	135	140	
Thr	Leu	Asp	Leu	Gly	Gln	Val	Phe	His	Val	Ala	Tyr	Val	Leu	Ile	Lys	145	150	155	160
Phe	Ala	Asn	Ser	Pro	Arg	Pro	Asp	Leu	Trp	Val	Leu	Glu	Arg	Ser	Met	165	170	175	
Asp	Phe	Gly	Arg	Thr	Tyr	Gln	Pro	Trp	Gln	Phe	Phe	Ala	Ser	Ser	Lys	180	185	190	
Arg	Asp	Cys	Leu	Glu	Arg	Phe	Gly	Pro	Gln	Thr	Leu	Glu	Arg	Ile	Thr	195	200	205	
Arg	Asp	Asp	Ala	Ala	Ile	Cys	Thr	Thr	Glu	Tyr	Ser	Arg	Ile	Val	Pro	210	215	220	
Leu	Glu	Asn	Gly	Glu	Ile	Val	Val	Ser	Leu	Val	Asn	Gly	Arg	Pro	Gly	225	230	235	240
Ala	Met	Asn	Phe	Ser	Tyr	Ser	Pro	Leu	Leu	Arg	Glu	Phe	Thr	Lys	Ala	245	250	255	
Thr	Asn	Val	Arg	Leu	Arg	Phe	Leu	Arg	Thr	Asn	Thr	Leu	Leu	Gly	His	260	265	270	
Leu	Met	Gly	Lys	Ala	Leu	Arg	Asp	Pro	Thr	Val	Thr	Arg	Arg	Tyr	Tyr	275	280	285	
Tyr	Ser	Ile	Lys	Asp	Ile	Ser	Ile	Gly	Gly	Arg	Cys	Val	Cys	His	Gly	290	295	300	
His	Ala	Asp	Ala	Cys	Asp	Ala	Lys	Asp	Pro	Thr	Asp	Pro	Phe	Arg	Leu	305	310	315	320
Gln	Cys	Thr	Cys	Gln	His	Asn	Thr	Cys	Gly	Gly	Thr	Cys	Asp	Arg	Cys	325	330	335	
Cys	Pro	Gly	Phe	Asn	Gln	Gln	Pro	Trp	Lys	Pro	Ala	Thr	Ala	Asn	Ser	340	345	350	
Ala	Asn	Glu	Cys	Gln	Ser	Cys	Asn	Cys	Tyr	Gly	His	Ala	Thr	Asp	Cys	355	360	365	
Tyr	Tyr	Asp	Pro	Glu	Val	Asp	Arg	Arg	Arg	Ala	Ser	Gln	Ser	Leu	Asp	370	375	380	

Gly	Thr	Tyr	Gln	Gly	Gly	Gly	Val	Cys	Ile	Asp	Cys	Gln	His	His	Thr	
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Thr	Gly	Val	Asn	Cys	Glu	Arg	Cys	Leu	Pro	Gly	Phe	Tyr	Arg	Ser	Pro	
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Asn	His	Pro	Leu	Asp	Ser	Pro	His	Val	Cys	Arg	Arg	Cys	Asn	Cys	Glu	
			420					425					430			
Ser	Asp	Phe	Thr	Asp	Gly	Thr	Cys	Glu	Asp	Leu	Thr	Gly	Arg	Cys	Tyr	
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Cys	Arg	Pro	Asn	Phe	Ser	Gly	Glu	Arg	Cys	Asp	Val	Cys	Ala	Glu	Gly	
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Phe	Thr	Gly	Phe	Pro	Ser	Cys	Tyr	Pro	Thr	Pro	Ser	Ser	Ser	Asn	Asp	
465					470					475					480	
Thr	Arg	Glu	Gln	Val	Leu	Pro	Ala	Gly	Gln	Ile	Val	Asn	Cys	Asp	Cys	
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Ser	Ala	Ala	Gly	Thr	Gln	Gly	Asn	Ala	Cys	Arg	Lys	Asp	Pro	Arg	Val	
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Gly	Arg	Cys	Leu	Cys	Lys	Pro	Asn	Phe	Gln	Gly	Thr	His	Cys	Glu	Leu	
		515					520					525				
Cys	Ala	Pro	Gly	Phe	Tyr	Gly	Pro	Gly	Cys	Gln	Pro	Cys	Gln	Cys	Ser	
	530					535					540					
Ser	Pro	Gly	Val	Ala	Asp	Arg	Cys	Asp	Pro	Asp	Thr	Gly	Gln	Cys		
545					550				555						560	
Arg	Cys	Arg	Val	Gly	Phe	Glu	Gly	Ala	Thr	Cys	Asp	Arg	Cys	Ala	Pro	
			565						570					575		
Gly	Tyr	Phe	His	Phe	Pro	Leu	Cys	Gln	Leu	Cys	Gly	Cys	Ser	Pro	Ala	
			580					585					590			
Gly	Thr	Leu	Pro	Glu	Gly	Cys	Asp	Glu	Ala	Gly	Arg	Cys	Leu	Cys	Gln	
		595					600					605				
Pro	Glu	Phe	Ala	Gly	Pro	His	Cys	Asp	Arg	Cys	Arg	Pro	Gly	Tyr	His	
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625					630					635					640	
Asp	Gln	Leu	Cys	Gly	Ala	Gly	Gly	Leu	Cys	Arg	Cys	Arg	Pro	Gly	Tyr	
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Thr	Gly	Thr	Ala	Cys	Gln	Glu	Cys	Ser	Pro	Gly	Phe	His	Gly	Phe	Pro	
			660					665					670			
Ser	Cys	Val	Pro	Cys	His	Cys	Ser	Ala	Glu	Gly	Ser	Leu	His	Ala	Ala	
		675					680					685				
Cys	Asp	Pro	Arg	Ser	Gly	Gln	Cys	Ser	Cys	Arg	Pro	Arg	Val	Thr	Gly	
	690					695					700					
Leu	Arg	Cys	Asp	Thr	Cys	Val	Pro	Gly	Ala	Tyr	Asn	Phe	Pro	Tyr	Cys	
705					710					715					720	
Glu	Ala	Gly	Ser	Cys	His	Pro	Ala	Gly	Leu	Ala	Pro	Val	Asp	Pro	Ala	
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Leu	Pro	Glu	Ala	Gln	Val	Pro	Cys	Met	Cys	Arg	Ala	His	Val	Glu	Gly	
		740						745					750			
Pro	Ser	Cys	Asp	Arg	Cys	Lys	Pro	Gly	Phe	Trp	Gly	Leu	Ser	Pro	Ser	
		755					760					765				
Asn	Pro	Glu	Gly	Cys	Thr	Arg	Cys	Ser	Cys	Asp	Leu	Arg	Gly	Thr	Leu	
	770					775					780					
Gly	Gly	Val	Ala	Glu	Cys	Gln	Pro	Gly	Thr	Gly	Gln	Cys	Phe	Cys	Lys	
785					790					795					800	
Pro	His	Val	Cys	Gly	Gln	Ala	Cys	Ala	Ser	Cys	Lys	Asp	Gly	Phe	Phe	
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Gly	Leu	Asp	Gln	Ala	Asp	Tyr	Phe	Gly	Cys	Arg	Ser	Cys	Arg	Cys	Asp	
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Ile	Gly	Gly	Ala	Leu	Gly	Gln	Ser	Cys	Glu	Pro	Arg	Thr	Gly	Val	Cys		
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Arg	Cys	Arg	Pro	Asn	Thr	Gln	Gly	Pro	Thr	Cys	Ser	Glu	Pro	Ala	Arg		
	850					855					860						
Asp	His	Tyr	Leu	Pro	Asp	Leu	His	His	Leu	Arg	Leu	Glu	Leu	Glu	Glu		
	865					870				875							
Ala	Ala	Thr	Pro	Glu	Gly	His	Ala	Val	Arg	Phe	Gly	Phe	Asn	Pro	Leu		
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Glu	Phe	Glu	Asn	Phe	Ser	Trp	Arg	Gly	Tyr	Ala	Gln	Met	Ala	Pro	Val		
			900					905					910				
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Trp	Leu	Val	Phe	Arg	Tyr	Val	Asn	Arg	Gly	Ala	Met	Ser	Val	Ser	Gly		
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Arg	Val	Ser	Val	Arg	Glu	Glu	Gly	Arg	Ser	Ala	Thr	Cys	Ala	Asn	Cys		
	945				950					955					960		
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			980					985					990				
Pro	Gly	Thr	Trp	Ala	Leu	Arg	Val	Glu	Ala	Glu	Gly	Val	Leu	Leu	Asp		
	995						1000					1005					
Tyr	Val	Val	Leu	Leu	Pro	Ser	Ala	Tyr	Tyr	Glu	Ala	Ala	Leu	Leu	Gln		
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Leu	Arg	Val	Thr	Glu	Ala	Cys	Thr	Tyr	Arg	Pro	Ser	Ala	Gln	Gln	Ser		
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Gly	Asp	Asn	Cys	Leu	Tyr	Thr	His	Leu	Pro	Leu	Asp	Gly	Phe	Pro			
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Ser	Ala	Ala	Gly	Leu	Glu	Ala	Leu	Cys	Arg	Gln	Asp	Asn	Ser	Leu	Pro		
		1060						1065					1070				
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	1075						1080					1085					
Thr	Cys	Thr	Gly	Ser	Asp	Val	Asp	Val	Gln	Leu	Gln	Val	Ala	Val	Pro		
	1090				1095						1100						
Gln	Pro	Gly	Arg	Tyr	Ala	Leu	Val	Val	Glu	Tyr	Ala	Asn	Glu	Asp	Ala		
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Ser	Glu	Ala	Ser	Val	Arg	Leu	Thr	Ala	Glu	Gln	Ala	Arg	Phe	Phe	Leu		
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His	Gly	Val	Thr	Leu	Val	Pro	Ile	Glu	Glu	Phe	Ser	Pro	Glu	Phe	Val		
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Ser	Ala	Ala	Cys	Leu	Pro	Ser	Arg	Phe	Pro	Lys	Pro	Pro	Gln	Pro	Ile		
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Ile	Leu	Arg	Asp	Cys	Gln	Val	Ile	Pro	Leu	Pro	Pro	Gly	Leu	Pro	Leu		
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Thr	His	Ala	Gln	Asp	Leu	Thr	Pro	Ala	Met	Ser	Pro	Ala	Gly	Pro	Arg		
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Arg	Glu	Pro	Gln	Ala	Thr	Val	Val	Phe	Thr	Thr	His	Val	Pro	Thr	Leu	1285	1290	1295
Gly	Arg	Tyr	Ala	Phe	Leu	Leu	His	Gly	Tyr	Gln	Pro	Ala	His	Pro	Thr	1300	1305	1310
Phe	Pro	Val	Glu	Val	Leu	Ile	Asn	Ala	Gly	Arg	Val	Trp	Gln	Gly	His	1315	1320	1325
Ala	Asn	Ala	Ser	Phe	Cys	Pro	His	Gly	Tyr	Gly	Cys	Arg	Thr	Leu	Val	1330	1335	1340
Val	Cys	Glu	Gly	Gln	Ala	Leu	Leu	Asp	Val	Thr	His	Ser	Glu	Leu	Thr	1345	1350	1355
Val	Thr	Val	Arg	Val	Pro	Lys	Gly	Arg	Trp	Leu	Trp	Leu	Asp	Tyr	Val	1365	1370	1375
Leu	Val	Val	Pro	Glu	Asn	Val	Tyr	Ser	Phe	Gly	Tyr	Leu	Arg	Glu	Glu	1380	1385	1390
Pro	Leu	Asp	Lys	Ser	Tyr	Asp	Phe	Ile	Ser	His	Cys	Ala	Ala	Gln	Gly	1395	1400	1405
Tyr	His	Ile	Ser	Pro	Ser	Ser	Ser	Ser	Leu	Phe	Cys	Arg	Asn	Ala	Ala	1410	1415	1420
Ala	Ser	Leu	Ser	Leu	Phe	Tyr	Asn	Asn	Gly	Ala	Arg	Pro	Cys	Gly	Cys	1425	1430	1435
His	Glu	Val	Gly	Ala	Thr	Gly	Pro	Thr	Cys	Glu	Pro	Phe	Gly	Gly	Gln	1445	1450	1455
Cys	Pro	Cys	His	Ala	His	Val	Ile	Gly	Arg	Asp	Cys	Ser	Arg	Cys	Ala	1460	1465	1470
Thr	Gly	Tyr	Trp	Gly	Phe	Pro	Asn	Cys	Arg	Pro	Cys	Asp	Cys	Gly	Ala	1475	1480	1485
Arg	Leu	Cys	Asp	Glu	Leu	Thr	Gly	Gln	Cys	Ile	Cys	Pro	Pro	Arg	Thr	1490	1495	1500
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Pro	Leu	Val	Gly	Cys	Glu	Glu	Cys	Asn	Cys	Ser	Gly	Pro	Gly	Ile	Gln	1525	1530	1535
Glu	Leu	Thr	Asp	Pro	Thr	Cys	Asp	Thr	Asp	Ser	Gly	Gln	Cys	Lys	Cys	1540	1545	1550
Arg	Pro	Asn	Val	Thr	Gly	Arg	Arg	Cys	Asp	Thr	Cys	Ser	Pro	Gly	Phe	1555	1560	1565
His	Gly	Tyr	Pro	Arg	Cys	Arg	Pro	Cys	Asp	Cys	His	Glu	Ala	Gly	Thr	1570	1575	1580
Ala	Pro	Gly	Val	Cys	Asp	Pro	Leu	Thr	Gly	Gln	Cys	Tyr	Cys	Lys	Glu	1585	1590	1595
Asn	Val	Gln	Gly	Pro	Lys	Cys	Asp	Gln	Cys	Ser	Leu	Gly	Thr	Phe	Ser	1605	1610	1615
Leu	Asp	Ala	Ala	Asn	Pro	Lys	Gly	Cys	Thr	Arg	Cys	Phe	Cys	Phe	Gly	1620	1625	1630
Ala	Thr	Glu	Arg	Cys	Arg	Ser	Ser	Ser	Tyr	Thr	Arg	Gln	Glu	Phe	Val	1635	1640	1645
Asp	Met	Glu	Gly	Trp	Val	Leu	Leu	Ser	Thr	Asp	Arg	Gln	Val	Val	Pro	1650	1655	1660
His	Glu	Arg	Gln	Pro	Gly	Thr	Glu	Met	Leu	Arg	Ala	Asp	Leu	Arg	His	1665	1670	1675
Val	Pro	Glu	Ala	Val	Pro	Glu	Ala	Phe	Pro	Glu	Leu	Tyr	Trp	Gln	Ala	1685	1690	1695
Pro	Pro	Ser	Tyr	Leu	Gly	Asp	Arg	Val	Ser	Ser	Tyr	Gly	Gly	Thr	Leu	1700	1705	1710
Arg	Tyr	Glu	Leu	His	Ser	Glu	Thr	Gln	Arg	Gly	Asp	Val	Phe	Val	Pro	1715	1720	1725

Met	Glu	Ser	Arg	Pro	Asp	Val	Val	Leu	Gln	Gly	Asn	Gln	Met	Ser	Ile	1730	1735	1740
Thr	Phe	Leu	Glu	Pro	Ala	Tyr	Pro	Thr	Pro	Gly	His	Val	His	Arg	Gly	1745	1750	1755
Gln	Leu	Gln	Leu	Val	Glu	Gly	Asn	Phe	Arg	His	Thr	Glu	Thr	Arg	Asn	1760	1765	1770
Thr	Val	Ser	Arg	Glu	Glu	Leu	Met	Met	Val	Leu	Ala	Ser	Leu	Glu	Gln	1775	1780	1785
Leu	Gln	Ile	Arg	Ala	Leu	Phe	Ser	Gln	Ile	Ser	Ser	Ala	Val	Phe	Leu	1790	1800	1805
Arg	Arg	Val	Ala	Leu	Glu	Val	Ala	Ser	Pro	Ala	Gly	Gln	Gly	Ala	Leu	1810	1815	1820
Ala	Ser	Asn	Val	Glu	Leu	Cys	Leu	Cys	Pro	Ala	Ser	Tyr	Arg	Gly	Asp	1825	1830	1835
Ser	Cys	Gln	Glu	Cys	Ala	Pro	Gly	Phe	Tyr	Arg	Asp	Val	Lys	Gly	Leu	1840	1845	1850
Phe	Leu	Gly	Arg	Cys	Val	Pro	Cys	Gln	Cys	His	Gly	His	Ser	Asp	Arg	1855	1860	1865
Cys	Leu	Pro	Gly	Ser	Gly	Val	Cys	Val	Asp	Cys	Gln	His	Asn	Thr	Glu	1870	1875	1880
Gly	Ala	His	Cys	Glu	Arg	Cys	Gln	Ala	Gly	Phe	Val	Ser	Ser	Arg	Asp	1885	1890	1895
Asp	Pro	Ser	Ala	Pro	Cys	Val	Ser	Cys	Pro	Cys	Pro	Leu	Ser	Val	Pro	1900	1905	1910
Ser	Asn	Asn	Phe	Ala	Glu	Gly	Cys	Val	Leu	Arg	Gly	Gly	Arg	Thr	Gln	1915	1920	1925
Cys	Leu	Cys	Lys	Pro	Gly	Tyr	Ala	Gly	Ala	Ser	Cys	Glu	Arg	Cys	Ala	1930	1935	1940
Pro	Gly	Phe	Gly	Asn	Pro	Leu	Val	Leu	Gly	Ser	Ser	Cys	Gln	Pro		1945	1950	1955
Cys	Asp	Cys	Ser	Gly	Asn	Gly	Asp	Pro	Asn	Leu	Leu	Phe	Ser	Asp	Cys	1960	1965	1970
Asp	Pro	Leu	Thr	Gly	Ala	Cys	Arg	Gly	Cys	Leu	Arg	His	Thr	Thr	Gly	1975	1980	1985
Pro	Arg	Cys	Glu	Ile	Cys	Ala	Pro	Gly	Phe	Tyr	Gly	Asn	Ala	Leu	Leu	1990	1995	2000
Pro	Gly	Asn	Cys	Thr	Arg	Cys	Asp	Cys	Thr	Pro	Cys	Gly	Thr	Glu	Ala	2005	2010	2015
Cys	Asp	Pro	His	Ser	Gly	His	Cys	Leu	Cys	Lys	Ala	Gly	Val	Thr	Gly	2020	2025	2030
Arg	Arg	Cys	Asp	Arg	Cys	Gln	Glu	Gly	His	Phe	Gly	Phe	Asp	Gly	Cys	2035	2040	2045
Gly	Gly	Cys	Arg	Pro	Cys	Ala	Cys	Gly	Pro	Ala	Ala	Glu	Gly	Ser	Glu	2050	2055	2060
Cys	His	Pro	Gln	Ser	Gly	Gln	Cys	His	Cys	Arg	Pro	Gly	Thr	Met	Gly	2065	2070	2075
Pro	Gln	Cys	Arg	Glu	Cys	Ala	Pro	Gly	Tyr	Trp	Gly	Leu	Pro	Glu	Gln	2080	2085	2090
Gly	Cys	Arg	Arg	Cys	Gln	Cys	Pro	Gly	Gly	Arg	Cys	Asp	Pro	His	Thr	2095	2100	2105
Gly	Arg	Cys	Asn	Cys	Pro	Pro	Gly	Leu	Ser	Gly	Glu	Arg	Cys	Asp	Thr	2110	2115	2120
Cys	Ser	Gln	Gln	His	Gln	Val	Pro	Val	Pro	Gly	Gly	Pro	Val	Gly	His	2125	2130	2135
Ser	Ile	His	Cys	Glu	Val	Cys	Asp	His	Cys	Val	Val	Leu	Leu	Leu	Asp	2140	2145	2150
																2155	2160	2165
																2170	2175	

Asp	Leu	Glu	Arg	Ala	Gly	Ala	Leu	Leu	Pro	Ala	Ile	His	Glu	Gln	Leu		
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		2195					2200					2205					
Asn	Ala	Ser	Ile	Ala	Asp	Leu	Gln	Ser	Gln	Leu	Arg	Ser	Pro	Leu	Gly		
		2210					2215					2220					
Pro	Arg	His	Glu	Thr	Ala	Gln	Gln	Leu	Glu	Val	Leu	Glu	Gln	Gln	Ser		
2225					2230					2235					2240		
Thr	Ser	Leu	Gly	Gln	Asp	Ala	Arg	Arg	Leu	Gly	Gly	Gln	Ala	Gly	Ala		
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 35 40 45
 Tyr Phe Asn Leu Ala Glu Gly Ala Arg Ile Ala Ala Ser Ala Thr Cys
 50 55 60
 Gly Glu Glu Ala Pro Ala Arg Gly Ser Pro Arg Pro Thr Glu Asp Leu
 65 70 75 80
 Tyr Cys Lys Leu Val Gly Gly Pro Val Ala Gly Gly Asp Pro Asn Gln
 85 90 95
 Thr Ile Arg Gly Gln Tyr Cys Asp Ile Cys Thr Ala Ala Asn Ser Asn
 100 105 110
 Lys Ala His Pro Ala Ser Asn Ala Ile Asp Gly Thr Glu Arg Trp Trp
 115 120 125
 Gln Ser Pro Pro Leu Ser Arg Gly Leu Glu Tyr Asn Glu Val Asn Val
 130 135 140
 Thr Leu Asp Leu Gly Gln Val Phe His Val Ala Tyr Val Leu Ile Lys
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 Phe Ala Asn Ser Pro Arg Pro Asp Leu Trp Val Leu Glu Arg Ser Met
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 Asp Phe Gly Arg Thr Tyr Gln Pro Trp Gln Phe Phe Ala Ser Ser Lys
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Cys	Ala 530	Pro	Gly	Phe	Tyr	Gly 535	Pro	Gly	Cys	Gln	Pro 540	Cys	Gln	Cys	Ser
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Phe	Pro	Val	Glu	Val	Leu	Ile	Asn	Ala	Gly	Arg	Val	Trp	Gln	Gly	His	
		1315				1320					1325					
Ala	Asn	Ala	Ser	Phe	Cys	Pro	His	Gly	Tyr	Gly	Cys	Arg	Thr	Leu	Val	
1330						1335				1340						
Val	Cys	Glu	Gly	Gln	Ala	Leu	Leu	Asp	Val	Thr	His	Ser	Glu	Leu	Thr	
1345					1350				1355						1360	
Val	Thr	Val	Arg	Val	Pro	Lys	Gly	Arg	Trp	Leu	Trp	Leu	Asp	Tyr	Val	
				1365					1370					1375		
Leu	Val	Val	Pro	Glu	Asn	Val	Tyr	Ser	Phe	Gly	Tyr	Leu	Arg	Glu	Glu	
			1380					1385					1390			
Pro	Leu	Asp	Lys	Ser	Tyr	Asp	Phe	Ile	Ser	His	Cys	Ala	Ala	Gln	Gly	
		1395				1400					1405					
Tyr	His	Ile	Ser	Pro	Ser	Ser	Ser	Ser	Leu	Phe	Cys	Arg	Asn	Ala	Ala	
	1410					1415					1420</					

Glu	Leu	Thr	Asp	Pro	Thr	Cys	Asp	Thr	Asp	Ser	Gly	Gln	Cys	Lys	Cys
			1540						1545				1550		
Arg	Pro	Asn	Val	Thr	Gly	Arg	Arg	Cys	Asp	Thr	Cys	Ser	Pro	Gly	Phe
		1555						1560				1565			
His	Gly	Tyr	Pro	Arg	Cys	Arg	Pro	Cys	Asp	Cys	His	Glu	Ala	Gly	Thr
	1570					1575					1580				
Ala	Pro	Gly	Val	Cys	Asp	Pro	Leu	Thr	Gly	Gln	Cys	Tyr	Cys	Lys	Glu
1585					1590					1595					1600
Asn	Val	Gln	Gly	Pro	Lys	Cys	Asp	Gln	Cys	Ser	Leu	Gly	Thr	Phe	Ser
				1605					1610					1615	
Leu	Asp	Ala	Ala	Asn	Pro	Lys	Gly	Cys	Thr	Arg	Cys	Phe	Cys	Phe	Gly
			1620					1625				1630			
Ala	Thr	Glu	Arg	Cys	Arg	Ser	Ser	Ser	Tyr	Thr	Arg	Gln	Glu	Phe	Val
		1635					1640					1645			
Asp	Met	Glu	Gly	Trp	Val	Leu	Leu	Ser	Thr	Asp	Arg	Gln	Val	Val	Pro
	1650					1655					1660				
His	Glu	Arg	Gln	Pro	Gly	Thr	Glu	Met	Leu	Arg	Ala	Asp	Leu	Arg	His
1665					1670					1675					1680
Val	Pro	Glu	Ala	Val	Pro	Glu	Ala	Phe	Pro	Glu	Leu	Tyr	Trp	Gln	Ala
				1685					1690					1695	
Pro	Pro	Ser	Tyr	Leu	Gly	Asp	Arg	Val	Ser	Ser	Tyr	Gly	Gly	Thr	Leu
			1700					1705					1710		
Arg	Tyr	Glu	Leu	His	Ser	Glu	Thr	Gln	Arg	Gly	Asp	Val	Phe	Val	Pro
		1715					1720					1725			
Met	Glu	Ser	Arg	Pro	Asp	Val	Val	Leu	Gln	Gly	Asn	Gln	Met	Ser	Ile
	1730				1735						1740				
Thr	Phe	Leu	Glu	Pro	Ala	Tyr	Pro	Thr	Pro	Gly	His	Val	His	Arg	Gly
1745					1750					1755					1760
Gln	Leu	Gln	Leu	Val	Glu	Gly	Asn	Phe	Arg	His	Thr	Glu	Thr	Arg	Asn
				1765					1770					1775	
Thr	Val	Ser	Arg	Glu	Glu	Leu	Met	Met	Val	Leu	Ala	Ser	Leu	Glu	Gln
			1780					1785					1790		
Leu	Gln	Ile	Arg	Ala	Leu	Phe	Ser	Gln	Ile	Ser	Ser	Ala	Val	Phe	Leu
		1795					1800					1805			
Arg	Arg	Val	Ala	Leu	Glu	Val	Ala	Ser	Pro	Ala	Gly	Gln	Gly	Ala	Leu
	1810					1815					1820				
Ala	Ser	Asn	Val	Glu	Leu	Cys	Leu	Cys	Pro	Ala	Ser	Tyr	Arg	Gly	Asp
1825					1830					1835					1840
Ser	Cys	Gln	Glu	Cys	Ala	Pro	Gly	Phe	Tyr	Arg	Asp	Val	Lys	Gly	Leu
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Phe	Leu	Gly	Arg	Cys	Val	Pro	Cys	Gln	Cys	His	Gly	His	Ser	Asp	Arg
			1860					1865					1870		
Cys	Leu	Pro	Gly	Ser	Gly	Val	Cys	Val	Asp	Cys	Gln	His	Asn	Thr	Glu
		1875					1880			</					

Asp	Pro	Leu	Thr	Gly	Ala	Cys	Arg	Gly	Cys	Leu	Arg	His	Thr	Thr	Gly	
1985					1990					1995						2000
Pro	Arg	Cys	Glu	Ile	Cys	Ala	Pro	Gly	Phe	Tyr	Gly	Asn	Ala	Leu	Leu	
				2005					2010							2015
Pro	Gly	Asn	Cys	Thr	Arg	Cys	Asp	Cys	Thr	Pro	Cys	Gly	Thr	Glu	Ala	
				2020					2025							2030
Cys	Asp	Pro	His	Ser	Gly	His	Cys	Leu	Cys	Lys	Ala	Gly	Val	Thr	Gly	
		2035						2040					2045			
Arg	Arg	Cys	Asp	Arg	Cys	Gln	Glu	Gly	His	Phe	Gly	Phe	Asp	Gly	Cys	
		2050				2055						2060				
Gly	Gly	Cys	Arg	Pro	Cys	Ala	Cys	Gly	Pro	Ala	Ala	Glu	Gly	Ser	Glu	
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Cys	His	Pro	Gln	Ser	Gly	Gln	Cys	His	Cys	Arg	Pro	Gly	Thr	Met	Gly	
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Pro	Gln	Cys	Arg	Glu	Cys	Ala	Pro	Gly	Tyr	Trp	Gly	Leu	Pro	Glu	Gln	
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Gly	Cys	Arg	Arg	Cys	Gln	Cys	Pro	Gly	Gly	Arg	Cys	Asp	Pro	His	Thr	
		2115						2120					2125			
Gly	Arg	Cys	Asn	Cys	Pro	Pro	Gly	Leu	Ser	Gly	Glu	Arg	Cys	Asp	Thr	
		2130					2135					2140				
Cys	Ser	Gln	Gln	His	Gln	Val	Pro	Val	Pro	Gly	Gly	Pro	Val	Gly	His	
2145					2150						2155					2160
Ser	Ile	His	Cys	Glu	Val	Cys	Asp	His	Cys	Val	Val	Leu	Leu	Leu	Asp	
				2165						2170						2175
Asp	Leu	Glu	Arg	Ala	Gly	Ala	Leu	Leu	Pro	Ala	Ile	His	Glu	Gln	Leu	
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Arg	Gly	Ile	Asn	Ala	Ser	Ser	Met	Ala	Trp	Ala	Arg	Leu	His	Arg	Leu	
		2195						2200								2205
Asn	Ala	Ser	Ile	Ala	Asp	Leu	Gln	Ser	Gln	Leu	Arg	Ser	Pro	Leu	Gly	
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Pro	Arg	His	Glu	Thr	Ala	Gln	Gln	Leu	Glu	Val	Leu	Glu	Gln	Gln	Ser	
2225					2230						2235					2240
Thr	Ser	Leu	Gly	Gln	Asp	Ala	Arg	Arg	Leu	Gly	Gly	Gln	Ala	Ala	Val	
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Gly	Thr	Arg	Asp	Gln	Ala	Ser	Gln	Leu	Leu	Ala	Gly	Thr	Glu	Ala	Thr	
				2260					2265							2270
Leu	Gly	His	Ala	Lys	Thr	Leu	Leu	Ala	Ala	Ile	Arg	Ala	Val	Asp	Arg	
				2275					2280					2285		
Thr	Leu	Ser	Glu	Leu	Met	Ser	Gln	Thr	Gly	His	Leu	Gly	Leu	Ala	Asn	
				2290				2295					2300			
Ala	Ser	Ala	Pro	Ser	Gly	Glu	Gln	Leu	Leu	Arg	Thr	Leu	Ala	Glu	Val	
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Glu	Arg	Leu	Leu	Trp	Glu	Met	Arg	Ala	Arg	Asp	Leu	Gly	Ala	Pro	Gln	
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Ala	Ala	Ala	Glu	Ala	Glu	Leu	Ala	Ala	Ala	Gln	Arg	Leu	Leu	Ala	Arg	
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Val	Gln	Glu	Gln	Leu	Ser	Ser	Leu	Trp	Glu	Glu	Asn	Gln	Ala	Leu	Ala	
				2355					2360							2365
Thr	Gln	Thr	Arg	Asp	Arg	Leu	Ala	Gln	His	Glu	Ala	Gly	Leu	Met	Asp	
				2370				2375								2380
Leu	Arg	Glu	Ala	Leu	Asn	Arg	Ala	Val	Asp	Ala	Thr	Arg	Glu	Ala	Gln	
2385					2390					2395						2400
Glu	Leu	Asn	Ser	Arg	Asn	Gln	Glu	Arg	Leu	Glu	Glu	Ala	Leu	Gln	Arg	
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Lys	Gln	Glu	Leu	Ser	Arg	Asp	Asn	Ala	Thr	Leu	Gln	Ala	Thr	Leu	His	
				2420					2425							2430

Ala	Ala	Arg	Asp	Thr	Leu	Ala	Ser	Val	Phe	Arg	Leu	Leu	His	Ser	Leu		
		2435						2440					2445				
Asp	Gln	Ala	Lys	Glu	Glu	Leu	Glu	Arg	Leu	Ala	Ala	Ser	Leu	Asp	Gly		
		2450					2455				2460						
Ala	Arg	Thr	Pro	Leu	Leu	Gln	Arg	Met	Gln	Thr	Phe	Ser	Pro	Ala	Gly		
2465						2470					2475					2480	
Ser	Lys	Leu	Arg	Leu	Val	Glu	Ala	Ala	Glu	Ala	His	Ala	Gln	Gln	Leu		
				2485					2490						2495		
Gly	Gln	Leu	Ala	Leu	Asn	Leu	Ser	Ser	Ile	Ile	Leu	Asp	Val	Asn	Gln		
				2500				2505					2510				
Asp	Arg	Leu	Thr	Gln	Arg	Ala	Ile	Glu	Ala	Ser	Asn	Ala	Tyr	Ser	Arg		
		2515					2520					2525					
Ile	Leu	Gln	Ala	Val	Gln	Ala	Ala	Glu	Asp	Ala	Ala	Gly	Gln	Ala	Leu		
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Gln	Gln	Ala	Asp	His	Thr	Trp	Ala	Thr	Val	Val	Arg	Gln	Gly	Leu	Val		
2545					2550					2555					2560		
Asp	Arg	Ala	Gln	Gln	Leu	Leu	Ala	Asn	Ser	Thr	Ala	Leu	Glu	Glu	Ala		
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Met	Leu	Gln	Glu	Gln	Gln	Arg	Leu	Gly	Leu	Val	Trp	Ala	Ala	Leu	Gln		
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Gly	Ala	Arg	Thr	Gln	Leu	Arg	Asp	Val	Arg	Ala	Lys	Lys	Asp	Gln	Leu		
		2595					2600					2605					
Glu	Ala	His	Ile	Gln	Ala	Ala	Gln	Ala	Met	Leu	Ala	Met	Asp	Thr	Asp		
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Glu	Thr	Ser	Lys	Lys	Ile	Ala	His	Ala	Lys	Ala	Val	Ala	Ala	Glu	Ala		
2625					2630					2635					2640		
Gln	Asp	Thr	Ala	Thr	Arg	Val	Gln	Ser	Gln	Leu	Gln	Ala	Met	Gln	Glu		
				2645					2650					2655			
Asn	Val	Glu	Arg	Trp	Gln	Gly	Gln	Tyr	Glu	Gly	Leu	Arg	Gly	Gln	Asp		
		2660						2665					2670				
Leu	Gly	Gln	Ala	Val	Leu	Asp	Ala	Gly	His	Ser	Val	Ser	Thr	Leu	Glu		
		2675						2680				2685					
Lys	Thr	Leu	Pro	Gln	Leu	Leu	Ala	Lys	Leu	Ser	Ile	Leu	Glu	Asn	Arg		
		2690					2695				2700						
Gly	Val	His	Asn	Ala	Ser	Leu	Ala	Leu	Ser	Ala	Ser	Ile	Gly	Arg	Val		
2705					2710					2715					2720		
Arg	Glu	Leu	Ile	Ala	Gln	Ala	Arg	Gly	Ala	Ala	Ser	Lys	Val	Lys	Val		
				2725					2730					2735			
Pro	Met	Lys	Phe	Asn	Gly	Arg	Ser	Gly	Val	Gln	Leu	Arg	Thr	Pro	Arg		
			2740					2745					2750				
Asp	Leu	Ala	Asp	Leu	Ala	Ala	Tyr	Thr	Ala	Leu	Lys	Phe	Tyr	Leu	Gln		
		2755					2760					2765					
Gly	Pro	Glu	Pro	Glu	Pro	Gly	Gln	Gly	Thr	Glu	Asp	Arg	Phe	Val	Met		
		2770				2775					2780						
Tyr	Met	Gly	Ser	Arg	Gln	Ala	Thr	Gly	Asp	Tyr	Met	Gly	Val	Ser	Leu		
2785					2790					2795					2800		
Arg	Asp	Lys	Lys	Val	His	Trp	Val	Tyr	Gln	Leu	Gly	Glu	Ala	Gly	Pro		
				2805					2810					2815			
Ala	Val	Leu	Ser	Ile	Asp	Glu	Asp	Ile	Gly	Glu	Gln	Phe	Ala	Ala	Val		
				2820				2825					2830				
Ser	Leu	Asp	Arg	Thr	Leu	Gln	Phe	Gly	His	Met	Ser	Val	Thr	Val	Glu		
		2835					2840					2845					
Arg	Gln	Met	Ile	Gln	Glu	Thr	Lys	Gly	Asp	Thr	Val	Ala	Pro	Gly	Ala		
		2850					2855				2860						
Glu	Gly	Leu	Leu	Asn	Leu	Arg	Pro	Asp	Asp	Phe	Val	Phe	Tyr	Val	Gly		
2865					2870					2875					2880		

Gly Tyr Pro Ser Thr Phe Thr Pro Pro Pro Leu Leu Arg Phe Pro Gly	2885	2890	2895
Tyr Arg Gly Cys Ile Glu Met Asp Thr Leu Asn Glu Glu Val Val Ser	2900	2905	2910
Leu Tyr Asn Phe Glu Arg Thr Phe Gln Leu Asp Thr Ala Val Asp Arg	2915	2920	2925
Pro Cys Ala Arg Ser Lys Ser Thr Gly Asp Pro Trp Leu Thr Asp Gly	2930	2935	2940
Ser Tyr Leu Asp Gly Thr Gly Phe Ala Arg Ile Ser Phe Asp Ser Gln	2945	2950	2955
Ile Ser Thr Thr Lys Arg Phe Glu Gln Glu Leu Arg Leu Val Ser Tyr	2965	2970	2975
Ser Gly Val Leu Phe Phe Leu Lys Gln Gln Ser Gln Phe Leu Cys Leu	2980	2985	2990
Ala Val Gln Glu Gly Ser Leu Val Leu Leu Tyr Asp Phe Gly Ala Gly	2995	3000	3005
Leu Lys Lys Ala Val Pro Leu Gln Pro Pro Pro Pro Leu Thr Ser Ala	3010	3015	3020
Ser Lys Ala Ile Gln Val Phe Leu Leu Gly Gly Ser Arg Lys Arg Val	3025	3030	3035
Leu Val Arg Val Glu Arg Ala Thr Val Tyr Ser Val Glu Gln Asp Asn	3045	3050	3055
Asp Leu Glu Leu Ala Asp Ala Tyr Tyr Leu Gly Gly Val Pro Pro Asp	3060	3065	3070
Gln Leu Pro Pro Ser Leu Arg Arg Leu Phe Pro Thr Gly Gly Ser Val	3075	3080	3085
Arg Gly Cys Val Lys Gly Ile Lys Ala Leu Gly Lys Tyr Val Asp Leu	3090	3095	3100
Lys Arg Leu Asn Thr Thr Gly Val Ser Ala Gly Cys Thr Ala Asp Leu	3105	3110	3115
Leu Val Gly Arg Ala Met Thr Phe His Gly His Gly Phe Leu Arg Leu	3125	3130	3135
Ala Leu Ser Asn Val Ala Pro Leu Thr Gly Asn Val Tyr Ser Gly Phe	3140	3145	3150
Gly Phe His Ser Ala Gln Asp Ser Ala Leu Leu Tyr Tyr Arg Ala Ser	3155	3160	3165
Pro Asp Gly Leu Cys Gln Val Ser Leu Gln Gln Gly Arg Val Ser Leu	3170	3175	3180
Gln Leu Leu Arg Thr Glu Val Lys Thr Gln Ala Gly Phe Ala Asp Gly	3185	3190	3195
Ala Pro His Tyr Val Ala Phe Tyr Ser Asn Ala Thr Gly Val Trp Leu	3205	3210	3215
Tyr Val Asp Asp Gln Leu Gln Gln Met Lys Pro His Arg Gly Pro Pro	3220	3225	3230
Pro Glu Leu Gln Pro Gln Pro Glu Gly Pro Pro Arg Leu Leu Leu Gly	3235	3240	3245
Gly Leu Pro Glu Ser Gly Thr Ile Tyr Asn Phe Ser Gly Cys Ile Ser	3250	3255	3260
Asn Val Phe Val Gln Arg Leu Leu Gly Pro Gln Arg Val Phe Asp Leu	3265	3270	3275
Gln Gln Asn Leu Gly Ser Val Asn Val Ser Thr Gly Cys Ala Pro Ala	3285	3290	3295
Leu Gln Ala Gln Thr Pro Gly Leu Gly Pro Arg Gly Leu Gln Ala Thr	3300	3305	3310
Ala Arg Lys Ala Ser Arg Arg Ser Arg Gln Pro Ala Arg His Pro Ala	3315	3320	3325

Cys Met Leu Pro Pro His Leu Arg Thr Thr Arg Asp Ser Tyr Gln Phe
 3330 3335 3340
 Gly Gly Ser Leu Ser Ser His Leu Glu Phe Val Gly Ile Leu Ala Arg
 3345 3350 3355 3360
 His Arg Asn Trp Pro Ser Leu Ser Met His Val Leu Pro Arg Ser Ser
 3365 3370 3375
 Arg Gly Leu Leu Leu Phe Thr Ala Arg Leu Arg Pro Gly Ser Pro Ser
 3380 3385 3390
 Leu Ala Leu Phe Leu Ser Asn Gly His Phe Val Ala Gln Met Glu Gly
 3395 3400 3405
 Leu Gly Thr Arg Leu Arg Ala Gln Ser Arg Gln Arg Ser Arg Pro Gly
 3410 3415 3420
 Arg Trp His Lys Val Ser Val Arg Trp Glu Lys Asn Arg Ile Leu Leu
 3425 3430 3435 3440
 Val Thr Asp Gly Ala Arg Ala Trp Ser Gln Glu Gly Pro His Arg Gln
 3445 3450 3455
 His Gln Gly Ala Glu His Pro Gln Pro His Thr Leu Phe Val Gly Gly
 3460 3465 3470
 Leu Pro Ala Ser Ser His Ser Ser Lys Leu Pro Val Thr Val Gly Phe
 3475 3480 3485
 Ser Gly Cys Val Lys Arg Leu Arg Leu His Gly Arg Pro Leu Gly Ala
 3490 3495 3500
 Pro Thr Arg Met Ala Gly Val Thr Pro Cys Ile Leu Gly Pro Leu Glu
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 Ala Gly Leu Phe Phe Pro Gly Ser Gly Gly Val Ile Thr Leu Asp Leu
 3525 3530 3535
 Pro Gly Ala Thr Leu Pro Asp Val Gly Leu Glu Leu Glu Val Arg Pro
 3540 3545 3550
 Leu Ala Val Thr Gly Leu Ile Phe His Leu Gly Gln Ala Arg Thr Pro
 3555 3560 3565
 Pro Tyr Leu Gln Leu Gln Val Thr Glu Lys Gln Val Leu Leu Arg Ala
 3570 3575 3580
 Asp Asp Gly Ala Gly Glu Phe Ser Thr Ser Val Thr Arg Pro Ser Val
 3585 3590 3595 3600
 Leu Cys Asp Gly Gln Trp His Arg Leu Ala Val Met Lys Ser Gly Asn
 3605 3610 3615
 Val Leu Arg Leu Glu Val Asp Ala Gln Ser Asn His Thr Val Gly Pro
 3620 3625 3630
 Leu Leu Ala Ala Ala Ala Gly Ala Pro Ala Pro Leu Tyr Leu Gly Gly
 3635 3640 3645
 Leu Pro Glu Pro Met Ala Val Gln Pro Trp Pro Pro Ala Tyr Cys Gly
 3650 3655 3660
 Cys Met Arg Arg Leu Ala Val Asn Arg Ser Pro Val Ala Met Thr Arg
 3665 3670 3675 3680
 Ser Val Glu Val His Gly Ala Val Gly Ala Ser Gly Cys Pro Ala Ala
 3685 3690 3695

<210> 32
 <211> 337
 <212> PRT
 <213> Homo sapiens

<400> 32
 Met Thr Asn Asn Ser Gly Ser Lys Ala Glu Leu Val Val Gly Gly Lys
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Leu	Gly	Ile	Thr	Thr	Thr	Asn	Gly	Glu	Asp	Val	Ala	Val	Lys	Leu	Glu
		35					40					45			
Ser	Gln	Lys	Val	Lys	His	Pro	Gln	Leu	Leu	Tyr	Glu	Ser	Lys	Leu	Tyr
	50					55					60				
Thr	Ile	Leu	Gln	Gly	Gly	Val	Gly	Ile	Pro	His	Met	His	Trp	Tyr	Gly
65					70					75					80
Gln	Glu	Lys	Asp	Asn	Asn	Val	Leu	Val	Met	Asp	Leu	Leu	Gly	Pro	Ser
				85					90					95	
Leu	Glu	Asp	Leu	Phe	Asn	Phe	Cys	Ser	Arg	Arg	Phe	Thr	Met	Lys	Thr
			100					105					110		
Val	Leu	Met	Leu	Ala	Asp	Gln	Met	Ile	Ser	Arg	Ile	Glu	Tyr	Val	His
		115					120					125			
Thr	Lys	Asn	Phe	Leu	His	Arg	Asp	Ile	Lys	Pro	Asp	Asn	Phe	Leu	Met
	130					135					140				
Gly	Thr	Gly	Arg	His	Cys	Asn	Lys	Leu	Phe	Leu	Ile	Asp	Phe	Gly	Leu
145					150					155					160
Ala	Lys	Lys	Tyr	Arg	Asp	Asn	Arg	Thr	Arg	Gln	His	Ile	Pro	Tyr	Arg
				165					170					175	
Glu	Asp	Lys	His	Leu	Ile	Gly	Thr	Val	Arg	Tyr	Ala	Ser	Ile	Asn	Ala
			180					185					190		
His	Leu	Gly	Ile	Glu	Gln	Ser	Arg	Arg	Asp	Asp	Met	Glu	Ser	Leu	Gly
		195					200				205				
Tyr	Val	Phe	Met	Tyr	Phe	Asn	Arg	Thr	Ser	Leu	Pro	Trp	Gln	Gly	Leu
	210					215					220				
Arg	Ala	Met	Thr	Lys	Lys	Gln	Lys	Tyr	Glu	Lys	Ile	Ser	Glu	Lys	Lys
225					230					235					240
Met	Ser	Thr	Pro	Val	Glu	Val	Leu	Cys	Lys	Gly	Phe	Pro	Ala	Glu	Phe
				245					250					255	
Ala	Met	Tyr	Leu	Asn	Tyr	Cys	Arg	Gly	Leu	Arg	Phe	Glu	Glu	Val	Pro
			260					265					270		
Asp	Tyr	Met	Tyr	Leu	Arg	Gln	Leu	Phe	Arg	Ile	Leu	Phe	Arg	Thr	Leu
		275					280					285			
Asn	His	Gln	Tyr	Asp	Tyr	Thr	Phe	Asp	Trp	Thr	Met	Leu	Lys	Gln	Lys
	290					295					300				
Ala	Ala	Gln	Gln	Ala	Ala	Ser	Ser	Ser	Gly	Gln	Gly	Gln	Gln	Ala	Gln
305					310					315					320
Thr	Gln	Thr	Gly	Lys	Gln	Thr	Glu	Lys	Asn	Lys	Asn	Asn	Val	Lys	Asp
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Asn

<210> 33
 <211> 888
 <212> PRT
 <213> Homo sapiens

<400> 33
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 Thr Gln Ala Ala Ala Leu Ile Asn Leu Lys Tyr Ser Val Glu Glu Glu
 20 25 30
 Gln Arg Ala Gly Thr Val Ile Ala Asn Val Ala Lys Asp Ala Arg Glu
 35 40 45

Ala	Gly	Phe	Ala	Leu	Asp	Pro	Arg	Gln	Ala	Ser	Ala	Phe	Arg	Val	Val
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Ser	Asn	Ser	Ala	Pro	His	Leu	Val	Asp	Ile	Asn	Pro	Ser	Ser	Gly	Leu
65					70					75					80
Leu	Val	Thr	Lys	Gln	Lys	Ile	Asp	Arg	Asp	Leu	Leu	Cys	Arg	Gln	Ser
				85					90					95	
Pro	Lys	Cys	Ile	Ile	Ser	Leu	Glu	Val	Met	Ser	Ser	Ser	Met	Glu	Ile
			100					105					110		
Cys	Val	Ile	Lys	Val	Glu	Ile	Lys	Asp	Leu	Asn	Asp	Asn	Ala	Pro	Ser
		115					120					125			
Phe	Pro	Ala	Ala	Gln	Ile	Glu	Leu	Glu	Ile	Ser	Glu	Ala	Ala	Ser	Pro
	130					135					140				
Gly	Thr	Arg	Ile	Pro	Leu	Asp	Ser	Ala	Tyr	Asp	Pro	Asp	Ser	Gly	Ser
145					150					155					160
Phe	Gly	Val	Gln	Thr	Tyr	Glu	Leu	Thr	Pro	Asn	Glu	Leu	Phe	Gly	Leu
				165					170					175	
Glu	Ile	Lys	Thr	Arg	Gly	Asp	Gly	Ser	Arg	Phe	Ala	Glu	Leu	Val	Val
			180					185					190		
Glu	Lys	Ser	Leu	Asp	Arg	Glu	Thr	Gln	Ser	His	Tyr	Ser	Phe	Arg	Ile
		195					200					205			
Thr	Ala	Leu	Asp	Gly	Gly	Asp	Pro	Pro	Arg	Leu	Gly	Thr	Val	Gly	Leu
	210					215					220				
Ser	Ile	Lys	Val	Thr	Asp	Ser	Asn	Asp	Asn	Asn	Pro	Val	Phe	Ser	Glu
225					230					235					240
Ser	Thr	Tyr	Ala	Val	Ser	Val	Pro	Glu	Asn	Ser	Pro	Pro	Asn	Thr	Pro
				245					250					255	
Val	Ile	Arg	Leu	Asn	Ala	Ser	Asp	Pro	Asp	Glu	Gly	Thr	Asn	Gly	Gln
			260					265					270		
Val	Val	Tyr	Ser	Phe	Tyr	Gly	Tyr	Val	Asn	Asp	Arg	Thr	Arg	Glu	Leu
		275					280					285			
Phe	Gln	Ile	Asp	Pro	His	Ser	Gly	Leu	Val	Thr	Val	Thr	Gly	Ala	Leu
	290					295				300					
Asp	Tyr	Glu	Glu	Gly	His	Val	Tyr	Glu	Leu	Asp	Val	Gln	Ala	Lys	Asp
305					310					315					320
Leu	Gly	Pro	Asn	Ser	Ile	Pro	Ala	His	Cys	Lys	Val	Thr	Val	Ser	Val
				325					330					335	
Leu	Asp	Thr	Asn	Asp	Asn	Pro	Pro	Val	Ile	Asn	Leu	Leu	Ser	Val	Asn
			340					345					350		
Ser	Glu	Leu	Val	Glu	Val	Ser	Glu	Ser	Ala	Pro	Pro	Gly	Tyr	Val	Ile
		355					360					365			
Ala	Leu	Val	Arg	Val	Ser	Asp	Arg	Asp	Ser	Gly	Leu	Asn	Gly	Arg	Val
	370					375					380				
Gln	Cys	Arg	Leu	Leu	Gly	Asn	Val	Pro	Phe	Arg	Leu	Gln	Glu	Tyr	Glu
385					390					395					400
Ser	Phe	Ser	Thr	Ile	Leu	Val	Asp	Gly	Arg	Leu	Asp	Arg	Glu	Gln	His
				405					410					415	
Asp	Gln	Tyr	Asn	Leu	Thr	Ile	Gln	Ala	Arg	Asp	Gly	Gly	Val	Pro	Met
			420					425					430		
Leu	Gln	Ser	Ala	Lys	Ser	Phe	Thr	Val	Leu	Ile	Thr	Asp	Glu	Asn	Asp
		435					440					445			
Asn	His	Pro	His	Phe	Ser	Lys	Pro	Tyr	Tyr	Gln	Val	Ile	Val	Gln	Glu
	450					455					460				
Asn	Asn	Thr	Pro	Gly	Ala	Tyr	Leu	Leu	Ser	Val	Ser	Ala	Arg	Asp	Pro
465					470					475					480
Asp	Leu	Gly	Leu	Asn	Gly	Ser	Val	Ser	Tyr	Gln	Ile	Val	Pro	Ser	Gln
				485					490					495	

<400> 34

Met	Glu	Ser	Leu	Leu	Leu	Pro	Val	Leu	Leu	Leu	Leu	Ala	Ile	Leu	Trp
1			5					10					15		
Thr	Gln	Ala	Ala	Ala	Leu	Ile	Asn	Leu	Lys	Tyr	Ser	Val	Glu	Glu	Glu
		20						25				30			
Gln	Arg	Ala	Gly	Thr	Val	Ile	Ala	Asn	Val	Ala	Lys	Asp	Ala	Arg	Glu
		35					40					45			
Ala	Gly	Phe	Ala	Leu	Asp	Pro	Arg	Gln	Ala	Ser	Ala	Phe	Arg	Val	Val
	50				55					60					
Ser	Asn	Ser	Ala	Pro	His	Leu	Val	Asp	Ile	Asn	Pro	Ser	Ser	Gly	Leu
65					70					75					80
Leu	Val	Thr	Lys	Gln	Lys	Ile	Asp	Arg	Asp	Leu	Leu	Cys	Arg	Gln	Ser
			85						90					95	
Pro	Lys	Cys	Ile	Ile	Ser	Leu	Glu	Val	Met	Ser	Ser	Ser	Met	Glu	Ile
			100					105					110		
Cys	Val	Ile	Lys	Val	Glu	Ile	Lys	Asp	Leu	Asn	Asp	Asn	Ala	Pro	Ser
		115					120					125			
Phe	Pro	Ala	Ala	Gln	Ile	Glu	Leu	Glu	Ile	Ser	Glu	Ala	Ala	Ser	Pro
	130					135					140				
Gly	Thr	Arg	Ile	Pro	Leu	Asp	Ser	Ala	Tyr	Asp	Pro	Asp	Ser	Gly	Ser
145					150					155					160
Phe	Gly	Val	Gln	Thr	Tyr	Glu	Leu	Thr	Pro	Asn	Glu	Leu	Phe	Gly	Leu
			165						170					175	
Glu	Ile	Lys	Thr	Arg	Gly	Asp	Gly	Ser	Arg	Phe	Ala	Glu	Leu	Val	Val
			180					185				190			
Glu	Lys	Ser	Leu	Asp	Arg	Glu	Thr	Gln	Ser	His	Tyr	Ser	Phe	Arg	Ile
		195					200					205			
Thr	Ala	Leu	Asp	Gly	Gly	Asp	Pro	Pro	Arg	Leu	Gly	Thr	Val	Gly	Leu
	210					215					220				
Ser	Ile	Lys	Val	Thr	Asp	Ser	Asn	Asp	Asn	Asn	Pro	Val	Phe	Ser	Glu
225					230					235					240
Ser	Thr	Tyr	Ala	Val	Ser	Val	Pro	Glu	Asn	Ser	Pro	Pro	Asn	Thr	Pro
			245						250					255	
Val	Ile	Arg	Leu	Asn	Ala	Ser	Asp	Pro	Asp	Glu	Gly	Thr	Asn	Gly	Gln
			260					265					270		
Val	Val	Tyr	Ser	Phe	Tyr	Gly	Tyr	Val	Asn	Asp	Arg	Thr	Arg	Glu	Leu
		275					280					285			
Phe	Gln	Ile	Asp	Pro	His	Ser	Gly	Leu	Val	Thr	Val	Thr	Gly	Ala	Leu
	290					295					300				
Asp	Tyr	Glu	Glu	Gly	His	Val	Tyr	Glu	Leu	Asp	Val	Gln	Ala	Lys	Asp
305					310					315					320
Leu	Gly	Pro	Asn	Ser	Ile	Pro	Ala	His	Cys	Lys	Val	Thr	Val	Ser	Val
			325						330					335	
Leu	Asp	Thr	Asn	Asp	Asn	Pro	Pro	Val	Ile	Asn	Leu	Leu	Ser	Val	Asn
			340					345					350		
Ser	Glu	Leu	Val	Glu	Val	Ser	Glu	Ser	Ala	Pro	Pro	Gly	Tyr	Val	Ile
		355					360					365			
Ala	Leu	Val	Arg	Val	Ser	Asp	Arg	Asp	Ser	Gly	Leu	Asn	Gly	Arg	Val
	370					375					380				
Gln	Cys	Arg	Leu	Leu	Gly	Asn	Val	Pro	Phe	Arg	Leu	Gln	Glu	Tyr	Glu
385					390					395					400
Ser	Phe	Ser	Thr	Ile	Leu	Val	Asp	Gly	Arg	Leu	Asp	Arg	Glu	Gln	His
			405						410					415	
Asp	Gln	Tyr	Asn	Leu	Thr	Ile	Gln	Ala	Arg	Asp	Gly	Gly	Val	Pro	Met
			420					425					430		
Leu	Gln	Ser	Ala	Lys	Ser	Phe	Thr	Val	Leu	Ile	Thr	Asp	Glu	Asn	Asp
		435					440					445			

Asn	His	Pro	His	Phe	Ser	Lys	Pro	Tyr	Tyr	Gln	Val	Ile	Val	Gln	Glu
450						455					460				
Asn	Asn	Thr	Pro	Gly	Ala	Tyr	Leu	Leu	Ser	Val	Ser	Ala	Arg	Asp	Pro
465					470					475					480
Asp	Leu	Gly	Leu	Asn	Gly	Ser	Val	Ser	Tyr	Gln	Ile	Val	Pro	Ser	Gln
				485					490					495	
Val	Arg	Asp	Met	Pro	Val	Phe	Thr	Tyr	Val	Ser	Ile	Asn	Pro	Asn	Ser
			500					505					510		
Gly	Asp	Ile	Tyr	Ala	Leu	Arg	Ser	Phe	Asn	His	Glu	Gln	Thr	Lys	Ala
		515					520					525			
Phe	Glu	Phe	Lys	Val	Leu	Ala	Lys	Asp	Gly	Gly	Leu	Pro	Ser	Leu	Gln
	530					535					540				
Ser	Asn	Ala	Thr	Val	Arg	Val	Ile	Ile	Leu	Asp	Val	Asn	Asp	Asn	Thr
545					550					555					560
Pro	Val	Ile	Thr	Ala	Pro	Pro	Leu	Ile	Asn	Gly	Thr	Ala	Glu	Val	Tyr
			565						570					575	
Ile	Pro	Arg	Asn	Ser	Gly	Ile	Gly	Tyr	Leu	Val	Thr	Val	Val	Lys	Ala
			580					585					590		
Glu	Asp	Tyr	Asp	Glu	Gly	Glu	Asn	Gly	Arg	Val	Thr	Tyr	Asp	Met	Thr
	595						600					605			
Glu	Gly	Asp	Arg	Gly	Phe	Phe	Glu	Ile	Asp	Gln	Val	Asn	Gly	Glu	Val
	610					615					620				
Arg	Thr	Thr	Arg	Thr	Phe	Gly	Glu	Ser	Ser	Lys	Ser	Ser	Tyr	Glu	Leu
625					630					635					640
Ile	Val	Val	Ala	His	Asp	His	Gly	Lys	Thr	Ser	Leu	Ser	Ala	Ser	Ala
			645						650					655	
Leu	Val	Leu	Ile	Tyr	Leu	Ser	Pro	Ala	Leu	Asp	Ala	Gln	Glu	Ser	Met
		660						665					670		
Gly	Ser	Val	Asn	Leu	Ser	Leu	Ile	Phe	Ile	Ile	Ala	Leu	Gly	Ser	Ile
	675						680					685			
Ala	Gly	Ile	Leu	Phe	Val	Thr	Met	Ile	Phe	Val	Ala	Ile	Lys	Cys	Lys
	690					695					700				
Arg	Asp	Asn	Lys	Glu	Ile	Arg	Thr	Tyr	Asn	Cys	Arg	Ile	Ala	Glu	Tyr
705					710					715					720
Ser	Tyr	Gly	His	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Lys	Lys	Ile	Ser	Lys
			725						730					735	
Asn	Asp	Ile	Arg	Leu	Val	Pro	Arg	Asp	Val	Glu	Glu	Thr	Asp	Lys	Met
		740						745					750		
Asn	Val	Val	Ser	Cys	Ser	Ser	Leu	Thr	Ser	Ser	Leu	Asn	Tyr	Phe	Asp
	755						760					765			
Tyr	His	Gln	Gln	Thr	Leu	Pro	Leu	Gly	Cys	Arg	Arg	Ser	Glu	Ser	Thr
	770					775					780				
Phe	Leu	Asn	Val	Glu	Asn	Gln	Asn	Thr	Arg	Asn	Thr	Ser	Ala	Asn	His
785					790					795					800
Ile	Tyr	His	His	Ser	Phe	Asn	Ser	Gln	Gly	Pro	Gln	Gln	Pro	Asp	Leu
			805						810					815	
Ile	Ile	Asn	Gly	Val	Pro	Leu	Pro	Glu	Thr	Glu	Asn	Tyr	Ser	Phe	Asp
		820						825					830		
Ser	Asn	Tyr	Val	Asn	Ser	Arg	Ala	His	Leu	Ile	Lys	Arg	Tyr	Val	Gly
	835						840					845			
Leu	Leu	Ala	Tyr	Cys	Cys	Asn									
850						855									

<210> 35
 <211> 329
 <212> PRT

<213> Homo sapiens

<400> 35

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Met Val Thr Lys Ala Phe Val Leu Leu Ala Ile Phe Ala Glu Ala Ser
 1          5          10          15
Ala Lys Ser Cys Ala Pro Asn Lys Ala Asp Val Ile Leu Val Phe Cys
 20          25          30
Tyr Pro Lys Thr Ile Ile Thr Lys Ile Pro Glu Cys Pro Tyr Gly Trp
 35          40          45
Glu Val His Gln Leu Ala Leu Gly Gly Leu Cys Tyr Asn Gly Val His
 50          55          60
Glu Gly Gly Tyr Tyr Gln Phe Val Ile Pro Asp Leu Ser Pro Lys Asn
 65          70          75          80
Lys Ser Tyr Cys Gly Thr Gln Ser Glu Tyr Lys Pro Pro Ile Tyr His
 85          90          95
Phe Tyr Ser His Ile Val Ser Asn Asp Thr Thr Val Ile Val Lys Asn
100          105          110
Gln Pro Val Asn Tyr Ser Phe Ser Cys Thr Tyr His Ser Thr Tyr Leu
115          120          125
Val Asn Gln Ala Ala Phe Asp Gln Arg Val Ala Thr Val His Val Lys
130          135          140
Asn Gly Ser Met Gly Thr Phe Glu Ser Gln Leu Ser Leu Asn Phe Tyr
145          150          155          160
Thr Asn Ala Lys Phe Ser Ile Lys Lys Glu Ala Pro Phe Val Leu Glu
165          170          175
Ala Ser Glu Ile Gly Ser Asp Leu Phe Ala Gly Val Glu Ala Lys Gly
180          185          190
Leu Ser Ile Arg Phe Lys Val Val Leu Asn Ser Cys Trp Ala Thr Pro
195          200          205
Ser Ala Asp Phe Met Tyr Pro Leu Gln Trp Gln Leu Ile Asn Lys Gly
210          215          220
Cys Pro Thr Asp Glu Thr Val Leu Val His Glu Asn Gly Arg Asp His
225          230          235          240
Arg Ala Thr Phe Gln Phe Asn Ala Phe Arg Phe Gln Asn Ile Pro Lys
245          250          255
Leu Ser Lys Val Trp Leu His Cys Glu Thr Phe Ile Cys Asp Ser Glu
260          265          270
Lys Leu Ser Cys Pro Val Thr Cys Asp Lys Arg Lys Arg Leu Leu Arg
275          280          285
Asp Gln Thr Gly Gly Val Leu Val Val Glu Leu Ser Leu Arg Ser Arg
290          295          300
Gly Phe Ser Ser Leu Tyr Ser Phe Ser Asp Val Leu His His Leu Ile
305          310          315          320
Met Met Leu Gly Ile Cys Ala Val Leu
325
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<210> 36

<211> 232

<212> PRT

<213> Homo sapiens

<400> 36

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Met Leu Tyr Thr Arg Lys Asn Leu Thr Cys Ala Gln Thr Ile Asn Ser
 1          5          10          15
Ser Ala Phe Gly Asn Leu Asn Val Thr Lys Lys Thr Thr Phe Ile Val
 20          25          30
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His	Gly	Phe	Arg	Pro	Thr	Gly	Ser	Pro	Pro	Val	Trp	Met	Asp	Asp	Leu
		35					40					45			
Val	Lys	Gly	Leu	Leu	Ser	Val	Glu	Asp	Met	Asn	Val	Val	Val	Val	Asp
	50					55					60				
Trp	Asn	Arg	Gly	Ala	Thr	Thr	Leu	Ile	Tyr	Thr	His	Ala	Ser	Ser	Lys
65					70					75					80
Thr	Arg	Lys	Val	Ala	Met	Val	Leu	Lys	Glu	Phe	Ile	Asp	Gln	Met	Leu
				85					90					95	
Ala	Glu	Gly	Ala	Ser	Leu	Asp	Asp	Ile	Tyr	Met	Ile	Gly	Val	Ser	Leu
			100					105					110		
Gly	Ala	His	Ile	Ser	Gly	Phe	Val	Gly	Glu	Met	Tyr	Asp	Gly	Trp	Leu
		115					120					125			
Gly	Arg	Ile	Thr	Gly	Leu	Asp	Pro	Ala	Gly	Pro	Leu	Phe	Asn	Gly	Lys
	130					135					140				
Pro	His	Gln	Asp	Arg	Leu	Asp	Pro	Ser	Asp	Ala	Gln	Phe	Val	Asp	Val
145					150					155					160
Ile	His	Ser	Asp	Thr	Asp	Gly	Asn	Ala	Pro	Phe	Leu	Val	Ala	Leu	Gly
				165					170					175	
Tyr	Lys	Glu	Pro	Leu	Gly	Asn	Ile	Asp	Phe	Tyr	Pro	Asn	Gly	Gly	Leu
			180					185					190		
Asp	Gln	Pro	Gly	Cys	Pro	Lys	Thr	Ile	Leu	Gly	Gly	Asn	Val	Lys	Glu
		195					200					205			
Met	Ile	Gln	Ala	Ser	Tyr	Ile	Phe	Phe	Leu	Lys	Asn	Asp	Ser	Met	Asp
	210					215					220				
Leu	Ser	Ser	Pro	Lys	Glu	Val	Glu								
225						230									

<210> 37
 <211> 452
 <212> PRT
 <213> Homo sapiens

<400> 37

Met	Leu	Arg	Phe	Tyr	Leu	Phe	Ile	Ser	Leu	Leu	Cys	Leu	Ser	Arg	Ser
1				5					10					15	
Asp	Ala	Glu	Glu	Thr	Cys	Pro	Ser	Phe	Thr	Arg	Leu	Ser	Phe	His	Ser
			20					25					30		
Ala	Val	Val	Gly	Thr	Gly	Leu	Asn	Val	Arg	Leu	Met	Leu	Tyr	Thr	Arg
		35					40					45			
Lys	Asn	Leu	Thr	Cys	Ala	Gln	Thr	Ile	Asn	Ser	Ser	Ala	Phe	Gly	Asn
	50					55					60				
Leu	Asn	Val	Thr	Lys	Lys	Thr	Thr	Phe	Ile	Val	His	Gly	Phe	Arg	Pro
65					70					75					80
Thr	Gly	Ser	Pro	Pro	Val	Trp	Met	Asp	Asp	Leu	Val	Lys	Gly	Leu	Leu
				85					90					95	
Ser	Val	Glu	Asp	Met	Asn	Val	Val	Val	Val	Asp	Trp	Asn	Arg	Gly	Ala
			100					105					110		
Thr	Thr	Leu	Ile	Tyr	Thr	His	Ala	Ser	Ser	Lys	Thr	Arg	Lys	Val	Ala
		115					120					125			
Met	Val	Leu	Lys	Glu	Phe	Ile	Asp	Gln	Met	Leu	Ala	Glu	Gly	Ala	Ser
	130					135					140				
Leu	Asp	Asp	Ile	Tyr	Met	Ile	Gly	Val	Ser	Leu	Gly	Ala	His	Ile	Ser
145					150					155					160
Gly	Phe	Val	Gly	Glu	Met	Tyr	Asp	Gly	Trp	Leu	Gly	Arg	Ile	Thr	Gly
				165					170					175	

Leu Asp Pro Ala Gly Pro Leu Phe Asn Gly Lys Pro His Gln Asp Arg
 180 185 190
 Leu Asp Pro Ser Asp Ala Gln Phe Val Asp Val Ile His Ser Asp Thr
 195 200 205
 Asp Ala Leu Gly Tyr Lys Glu Pro Leu Gly Asn Ile Asp Phe Tyr Pro
 210 215 220
 Asn Gly Gly Leu Asp Gln Pro Gly Cys Pro Lys Thr Ile Leu Gly Gly
 225 230 235 240
 Phe Gln Tyr Phe Lys Cys Asp His Gln Arg Ser Val Tyr Leu Tyr Leu
 245 250 255
 Ser Ser Leu Arg Glu Ser Cys Thr Ile Thr Ala Tyr Pro Cys Asp Ser
 260 265 270
 Tyr Gln Asp Tyr Arg Asn Gly Lys Cys Val Ser Cys Gly Thr Ser Gln
 275 280 285
 Lys Glu Ser Cys Pro Leu Leu Gly Tyr Tyr Ala Asp Asn Trp Lys Asp
 290 295 300
 His Leu Arg Gly Lys Asp Pro Pro Met Thr Lys Ala Phe Phe Asp Thr
 305 310 315 320
 Ala Glu Glu Ser Pro Phe Cys Met Tyr His Tyr Phe Val Asp Ile Ile
 325 330 335
 Thr Trp Asp Lys Asn Val Arg Arg Gly Asp Ile Thr Ile Lys Leu Arg
 340 345 350
 Asp Lys Ala Gly Asn Thr His Arg Ser Lys Ile Ile Ser Asn Glu Pro
 355 360 365
 Thr Thr Phe Gln Lys Tyr His Gln Val Ser Leu Leu Ala Arg Phe Asn
 370 375 380
 Gln Asp Leu Asp Lys Val Ala Ala Ile Ser Leu Met Phe Ser Thr Gly
 385 390 395 400
 Ser Leu Ile Gly Pro Arg Tyr Lys Leu Arg Ile Leu Arg Met Lys Leu
 405 410 415
 Arg Ser Leu Ala His Pro Glu Arg Pro Gln Leu Cys Arg Tyr Asp Leu
 420 425 430
 Val Leu Met Glu Asn Val Glu Thr Val Phe Gln Pro Ile Leu Cys Pro
 435 440 445
 Glu Leu Gln Leu
 450

<210> 38
 <211> 450
 <212> PRT
 <213> Homo sapiens

-1

<400> 38
 Met Gly Leu Arg Ser His His Leu Ser Leu Gly Leu Leu Leu Leu Phe
 1 5 10 15
 Leu Leu Pro Ala Glu Cys Leu Gly Ala Glu Gly Arg Leu Ala Leu Lys
 20 25 30
 Leu Phe Arg Asp Leu Phe Ala Asn Tyr Thr Ser Ala Leu Arg Pro Val
 35 40 45
 Ala Asp Thr Asp Gln Thr Leu Asn Val Thr Leu Glu Val Thr Leu Ser
 50 55 60
 Gln Ile Ile Asp Met Asp Glu Arg Asn Gln Val Leu Thr Leu Tyr Leu
 65 70 75 80
 Trp Ile Arg Gln Glu Trp Thr Asp Ala Tyr Leu Arg Trp Asp Pro Asn
 85 90 95

Ala Tyr Gly Gly Leu Asp Ala Ile Arg Ile Pro Ser Ser Leu Val Trp
 100 105 110
 Arg Pro Asp Ile Val Leu Tyr Asn Lys Ala Asp Ala Gln Pro Pro Gly
 115 120 125
 Ser Ala Ser Thr Asn Val Val Leu Arg His Asp Gly Ala Val Arg Trp
 130 135 140
 Asp Ala Pro Ala Ile Thr Arg Ser Ser Cys Arg Val Asp Val Ala Ala
 145 150 155 160
 Phe Pro Phe Asp Ala Gln His Cys Gly Leu Thr Phe Gly Ser Trp Thr
 165 170 175
 His Gly Gly His Gln Leu Asp Val Arg Pro Arg Gly Ala Ala Ala Ser
 180 185 190
 Leu Ala Asp Phe Val Glu Asn Val Glu Trp Arg Val Leu Gly Met Pro
 195 200 205
 Ala Arg Arg Arg Val Leu Thr Tyr Gly Cys Cys Ser Glu Pro Tyr Pro
 210 215 220
 Asp Val Thr Phe Thr Leu Leu Leu Arg Arg Arg Ala Ala Ala Tyr Val
 225 230 235 240
 Cys Asn Leu Leu Leu Pro Cys Val Leu Ile Ser Leu Leu Ala Pro Leu
 245 250 255
 Ala Phe His Leu Pro Ala Asp Ser Gly Glu Lys Val Ser Leu Gly Val
 260 265 270
 Thr Val Leu Leu Ala Leu Thr Val Phe Gln Leu Leu Leu Ala Glu Ser
 275 280 285
 Met Pro Pro Ala Glu Ser Val Pro Leu Ile Gly Lys Tyr Tyr Met Ala
 290 295 300
 Thr Met Thr Met Val Thr Phe Ser Thr Ala Leu Thr Ile Leu Ile Met
 305 310 315 320
 Asn Leu His Tyr Cys Gly Pro Ser Val Arg Pro Val Pro Ala Trp Ala
 325 330 335
 Arg Ala Leu Leu Leu Gly His Leu Ala Arg Gly Leu Cys Val Arg Glu
 340 345 350
 Arg Gly Glu Pro Cys Gly Gln Ser Arg Pro Pro Glu Leu Ser Pro Ser
 355 360 365
 Pro Gln Ser Pro Glu Gly Gly Ala Gly Pro Pro Ala Gly Pro Cys His
 370 375 380
 Glu Pro Arg Cys Leu Cys Arg Gln Glu Ala Leu Leu His His Val Ala
 385 390 395 400
 Thr Ile Ala Asn Thr Phe Arg Ser His Arg Ala Ala Gln Arg Cys His
 405 410 415
 Glu Asp Trp Lys Arg Leu Ala Arg Val Met Asp Arg Phe Phe Leu Ala
 420 425 430
 Ile Phe Phe Ser Met Ala Leu Val Met Ser Leu Leu Val Leu Val Gln
 435 440 445
 Ala Leu
 450

<210> 39
 <211> 255
 <212> PRT
 <213> Homo sapiens

<400> 39
 Met Val Lys Gly Glu Lys Gly Pro Lys Gly Lys Lys Ile Thr Leu Lys
 1 5 10 15

Val	Ala	Arg	Asn	Cys	Ile	Lys	Ile	Thr	Phe	Asp	Gly	Lys	Lys	Arg	Leu
			20					25					30		
Asp	Leu	Ser	Lys	Met	Gly	Ile	Thr	Thr	Phe	Pro	Lys	Cys	Ile	Leu	Arg
	35					40					45				
Leu	Ser	Asp	Met	Asp	Glu	Leu	Asp	Leu	Ser	Arg	Asn	Leu	Ile	Arg	Lys
	50					55					60				
Ile	Pro	Asp	Ser	Ile	Ser	Lys	Phe	Gln	Asn	Leu	Arg	Trp	Leu	Asp	Leu
65					70					75					80
His	Ser	Asn	Tyr	Ile	Asp	Lys	Leu	Pro	Glu	Ser	Ile	Gly	Gln	Met	Thr
			85						90					95	
Ser	Leu	Leu	Tyr	Leu	Asn	Val	Ser	Asn	Asn	Arg	Leu	Thr	Ser	Asn	Gly
			100					105					110		
Leu	Pro	Val	Glu	Leu	Lys	Gln	Leu	Lys	Asn	Ile	Arg	Ala	Val	Asn	Leu
		115					120					125			
Gly	Leu	Asn	His	Leu	Asp	Ser	Val	Pro	Thr	Thr	Leu	Gly	Ala	Leu	Lys
	130					135					140				
Glu	Leu	His	Glu	Val	Gly	Leu	His	Asp	Asn	Leu	Leu	Asn	Asn	Ile	Pro
145					150					155					160
Val	Ser	Ile	Ser	Lys	Leu	Pro	Lys	Leu	Lys	Lys	Leu	Asn	Ile	Lys	Arg
			165						170					175	
Asn	Pro	Phe	Pro	Lys	Pro	Gly	Glu	Ser	Glu	Ile	Phe	Ile	Asp	Ser	Ile
			180					185					190		
Arg	Arg	Leu	Glu	Asn	Leu	Tyr	Val	Val	Glu	Glu	Lys	Asp	Leu	Cys	Ala
		195					200					205			
Ala	Cys	Leu	Arg	Lys	Cys	Gln	Asn	Ala	Arg	Asp	Asn	Leu	Asn	Arg	Ile
	210					215					220				
Lys	Asn	Met	Ala	Thr	Thr	Thr	Pro	Arg	Lys	Thr	Ile	Phe	Pro	Asn	Leu
225					230					235					240
Ile	Ser	Pro	Asn	Ser	Met	Ala	Lys	Asp	Ser	Trp	Glu	Asp	Trp	Arg	
			245						250					255	

<210> 40
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 <212> PRT
 <213> Homo sapiens

<400> 40

Met	Gln	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln	Arg
1				5					10					15	
Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln	Pro
		20					25					30			
Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Val	Tyr	Phe	Val	Gln	Tyr	Lys	
	35					40				45					
Ile	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly	Thr
	50					55					60				
Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln	Glu
65					70					75					80
Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser	Glu
			85						90					95	
Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile	Asp
			100					105					110		
Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val	Ile
		115					120					125			
Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn	Val
	130					135					140				

Ser Ile Glu Asp Tyr Tyr Glu Leu Leu Tyr Arg Val Phe Ile Ile Asn
 145 150 155 160
 Asn Ser Leu Glu Lys Glu Gln Lys Val Tyr Glu Gly Ala His Arg Ala
 165 170 175
 Val Glu Ile Glu Ala Leu Thr Pro His Ser Ser Tyr Cys Val Val Ala
 180 185 190
 Glu Ile Tyr Gln Pro Met Leu Asp Arg Arg Ser Gln Arg Ser Glu Glu
 195 200 205
 Arg Cys Val Glu Ile Pro
 210

<210> 41
 <211> 231
 <212> PRT
 <213> Homo sapiens

<400> 41
 Met Met Pro Lys His Cys Phe Leu Gly Phe Leu Ile Ser Phe Phe Leu
 1 5 10 15
 Thr Gly Val Ala Gly Thr Gln Ser Thr His Glu Ser Leu Lys Pro Gln
 20 25 30
 Arg Val Gln Phe Gln Ser Arg Asn Phe His Asn Ile Leu Gln Trp Gln
 35 40 45
 Pro Gly Arg Ala Leu Thr Gly Asn Ser Ser Val Tyr Phe Val Gln Tyr
 50 55 60
 Lys Ile Tyr Gly Gln Arg Gln Trp Lys Asn Lys Glu Asp Cys Trp Gly
 65 70 75 80
 Thr Gln Glu Leu Ser Cys Asp Leu Thr Ser Glu Thr Ser Asp Ile Gln
 85 90 95
 Glu Pro Tyr Tyr Gly Arg Val Arg Ala Ala Ser Ala Gly Ser Tyr Ser
 100 105 110
 Glu Trp Ser Met Thr Pro Arg Phe Thr Pro Trp Trp Glu Thr Lys Ile
 115 120 125
 Asp Pro Pro Val Met Asn Ile Thr Gln Val Asn Gly Ser Leu Leu Val
 130 135 140
 Ile Leu His Ala Pro Asn Leu Pro Tyr Arg Tyr Gln Lys Glu Lys Asn
 145 150 155 160
 Val Ser Ile Glu Asp Tyr Tyr Glu Leu Leu Tyr Arg Val Phe Ile Ile
 165 170 175
 Asn Asn Ser Leu Glu Lys Glu Gln Lys Val Tyr Glu Gly Ala His Arg
 180 185 190
 Ala Val Glu Ile Glu Ala Leu Thr Pro His Ser Ser Tyr Cys Val Val
 195 200 205
 Ala Glu Ile Tyr Gln Pro Met Leu Asp Arg Arg Ser Gln Arg Ser Glu
 210 215 220
 Glu Arg Cys Val Glu Ile Pro
 225 230

<210> 42
 <211> 263
 <212> PRT
 <213> Homo sapiens

<400> 42

Met	Met	Pro	Lys	His	Cys	Phe	Leu	Gly	Phe	Leu	Ile	Ser	Phe	Phe	Leu
1				5					10					15	
Thr	Gly	Val	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln
			20					25					30		
Arg	Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln
		35					40					45			
Pro	Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Ser	Val	Tyr	Phe	Val	Gln	Tyr
	50					55					60				
Lys	Ile	Met	Phe	Ser	Cys	Ser	Met	Lys	Ser	Ser	His	Gln	Lys	Pro	Ser
65					70					75				80	
Gly	Cys	Trp	Gln	His	Ile	Ser	Cys	Asn	Phe	Pro	Gly	Cys	Arg	Thr	Leu
				85					90					95	
Ala	Lys	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly
			100					105					110		
Thr	Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln
		115					120					125			
Glu	Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser
	130					135					140				
Glu	Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile
145					150					155				160	
Asp	Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val
				165					170					175	
Ile	Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn
			180					185					190		
Val	Ser	Ile	Glu	Asp	Tyr	Tyr	Glu	Leu	Leu	Tyr	Arg	Val	Phe	Ile	Ile
		195					200					205			
Asn	Asn	Ser	Leu	Glu	Lys	Glu	Gln	Lys	Val	Tyr	Glu	Gly	Ala	His	Arg
	210					215					220				
Ala	Val	Glu	Ile	Glu	Ala	Leu	Thr	Pro	His	Ser	Ser	Tyr	Cys	Val	Val
225					230					235				240	
Ala	Glu	Ile	Tyr	Gln	Pro	Met	Leu	Asp	Arg	Arg	Ser	Gln	Arg	Ser	Glu
				245					250					255	
Glu	Arg	Cys	Val	Glu	Ile	Pro									
			260												

<210> 43
 <211> 259
 <212> PRT
 <213> Homo sapiens

<400> 43

Met	Tyr	Val	Leu	Ser	Pro	Val	Glu	Phe	Ile	Ile	Leu	Gln	Leu	Leu	Phe
1				5					10					15	
Ile	Gln	Ala	Ile	Ser	Ser	Ser	Leu	Lys	Gly	Phe	Leu	Ser	Ala	Met	Arg
		20						25					30		
Leu	Ala	His	Arg	Gly	Cys	Asn	Val	Asp	Thr	Pro	Val	Ser	Thr	Leu	Thr
		35				40						45			
Pro	Val	Lys	Thr	Ser	Glu	Phe	Glu	Asn	Phe	Lys	Thr	Lys	Met	Val	Ile
	50					55					60				
Thr	Ser	Lys	Lys	Asp	Tyr	Pro	Leu	Ser	Lys	Asn	Phe	Pro	Tyr	Ser	Leu
65					70					75				80	
Glu	His	Leu	Gln	Thr	Ser	Tyr	Cys	Gly	Leu	Val	Arg	Val	Asp	Met	Arg
				85					90					95	
Met	Leu	Cys	Leu	Lys	Ser	Leu	Arg	Lys	Leu	Asp	Leu	Ser	His	Asn	His
			100					105					110		

Ile	Lys	Lys	Leu	Pro	Ala	Thr	Ile	Gly	Asp	Leu	Ile	His	Leu	Gln	Glu
		115						120				125			
Leu	Asn	Leu	Asn	Asp	Asn	His	Leu	Glu	Ser	Phe	Ser	Val	Ala	Leu	Cys
	130					135					140				
His	Ser	Thr	Leu	Gln	Lys	Ser	Leu	Arg	Ser	Leu	Asp	Leu	Ser	Lys	Asn
145					150					155					160
Lys	Ile	Lys	Ala	Leu	Pro	Val	Gln	Phe	Cys	Gln	Leu	Gln	Glu	Leu	Lys
				165					170					175	
Asn	Leu	Lys	Leu	Asp	Asp	Asn	Glu	Leu	Ile	Gln	Phe	Pro	Cys	Lys	Ile
			180					185				190			
Gly	Gln	Leu	Ile	Asn	Leu	Arg	Phe	Leu	Ser	Ala	Ala	Arg	Asn	Lys	Leu
	195						200					205			
Pro	Phe	Leu	Pro	Ser	Glu	Phe	Arg	Asn	Leu	Ser	Leu	Glu	Tyr	Leu	Asp
	210					215					220				
Leu	Phe	Gly	Asn	Thr	Phe	Glu	Gln	Pro	Lys	Val	Leu	Pro	Val	Ile	Lys
225					230					235					240
Leu	Gln	Ala	Pro	Leu	Thr	Leu	Leu	Glu	Ser	Ser	Ala	Arg	Thr	Ile	Leu
				245					250					255	
His	Asn	Arg													

<210> 44
 <211> 416
 <212> PRT
 <213> Homo sapiens

<400> 44

Met	Lys	Leu	His	Cys	Glu	Val	Glu	Val	Ile	Ser	Arg	His	Leu	Pro	Ala
1				5					10					15	
Leu	Gly	Leu	Arg	Asn	Arg	Gly	Lys	Gly	Val	Arg	Ala	Val	Leu	Ser	Leu
			20					25					30		
Cys	Gln	Gln	Thr	Ser	Arg	Ser	Gln	Pro	Pro	Val	Arg	Ala	Phe	Leu	Leu
	35						40				45				
Ile	Ser	Thr	Leu	Lys	Asp	Lys	Arg	Gly	Thr	Arg	Tyr	Glu	Leu	Arg	Glu
	50					55					60				
Asn	Ile	Glu	Gln	Phe	Phe	Thr	Lys	Phe	Val	Asp	Glu	Gly	Lys	Ala	Thr
65					70					75					80
Val	Arg	Leu	Lys	Glu	Pro	Pro	Val	Asp	Ile	Cys	Leu	Ser	Lys	Ala	Ile
			85					90						95	
Ser	Ser	Ser	Leu	Lys	Gly	Phe	Leu	Ser	Ala	Met	Arg	Leu	Ala	His	Arg
			100					105					110		
Gly	Cys	Asn	Val	Asp	Thr	Pro	Val	Ser	Thr	Leu	Thr	Pro	Val	Lys	Thr
		115					120					125			
Ser	Glu	Phe	Glu	Asn	Phe	Lys	Thr	Lys	Met	Val	Ile	Thr	Ser	Lys	Lys
	130					135					140				
Asp	Tyr	Pro	Leu	Ser	Lys	Asn	Phe	Pro	Tyr	Ser	Leu	Glu	His	Leu	Gln
145					150					155					160
Thr	Ser	Tyr	Cys	Gly	Leu	Val	Arg	Val	Asp	Met	Arg	Met	Leu	Cys	Leu
			165						170					175	
Lys	Ser	Leu	Arg	Lys	Leu	Asp	Leu	Ser	His	Asn	His	Ile	Lys	Lys	Leu
		180						185					190		
Pro	Ala	Thr	Ile	Gly	Asp	Leu	Ile	His	Leu	Gln	Glu	Leu	Asn	Leu	Asn
	195						200					205			
Asp	Asn	His	Leu	Glu	Ser	Phe	Ser	Val	Ala	Leu	Cys	His	Ser	Thr	Leu
	210					215					220				

Gln	Lys	Ser	Leu	Arg	Ser	Leu	Asp	Leu	Ser	Lys	Asn	Lys	Ile	Lys	Ala
225					230					235					240
Leu	Pro	Val	Gln	Phe	Cys	Gln	Leu	Gln	Glu	Leu	Lys	Asn	Leu	Lys	Leu
				245					250						255
Asp	Asp	Asn	Glu	Leu	Ile	Gln	Phe	Pro	Cys	Lys	Ile	Gly	Gln	Leu	Ile
			260					265					270		
Asn	Leu	Arg	Phe	Leu	Ser	Ala	Ala	Arg	Asn	Lys	Leu	Pro	Phe	Leu	Pro
		275				280						285			
Ser	Glu	Phe	Arg	Asn	Leu	Ser	Leu	Glu	Tyr	Leu	Asp	Leu	Phe	Gly	Asn
	290				295						300				
Thr	Phe	Glu	Gln	Pro	Lys	Val	Leu	Pro	Val	Ile	Lys	Leu	Gln	Ala	Pro
305					310					315					320
Leu	Thr	Leu	Leu	Glu	Ser	Ser	Ala	Arg	Thr	Ile	Leu	His	Asn	Arg	Asn
				325					330						335
Arg	Ile	Pro	Tyr	Gly	Ser	His	Ile	Ile	Pro	Phe	His	Leu	Cys	Gln	Asp
			340					345					350		
Leu	Asp	Thr	Ala	Lys	Ile	Cys	Val	Cys	Gly	Arg	Phe	Cys	Leu	Asn	Ser
		355					360					365			
Phe	Ile	Gln	Gly	Thr	Thr	Thr	Met	Asn	Leu	His	Ser	Val	Ala	His	Thr
	370					375					380				
Val	Val	Leu	Val	Asp	Asn	Leu	Gly	Gly	Thr	Glu	Ala	Pro	Ile	Ile	Ser
385					390					395					400
Tyr	Phe	Cys	Ser	Leu	Gly	Cys	Tyr	Val	Asn	Ser	Ser	Asp	Met	Leu	Lys
				405					410					415	

<210> 45
 <211> 990
 <212> DNA
 <213> Mus musculus

<400> 45
 atggtggtca gggccttcgt tttgctggcc ctctttgcag aagcctcagc gaaatcatgc 60
 actccgaata aagcagatgt catccttgtg ttttggtatc ccaagaccat catcactaaa 120
 atccccgagt gtccctatgg atgggaagta caccagctgg cactcggggg gctgtgttac 180
 aacgggggtcc atgaaggtgg ctattaccag tttgtcatcc ctgatctgtc acctaagaac 240
 aagtcctact gcggaacca gtcagagtac aagcccccca tctaccactt ctacagccac 300
 atcgtgtcca acgacagcac agtgatcgtg aagaaccagc ccgtcaacta ctccttctcc 360
 tgcacctacc actccaccta cttggtgaac caggctgctt ttgaccagag agtggccact 420
 gttcacgtca agaacgggag catgggcaca tttgaaagcc agttgtccct caacttctac 480
 actaatgcca agttttccac caaaaaagaa gctcccttcg ttctggaaac gtccgaaatc 540
 ggctcagatc tgtttgcggg agtagaagcc aaaggcctaa gcgttcggtt caaagtgggtc 600
 ttgaatagct gctgggccac cccctcggct gacttcatgt accccttaca gtggcagctc 660
 atcaataagg gctgccccac cgatgagaca gtcctcgtgc atgagaacgg caaagaccac 720
 agggccactt tccaattcaa tgcccttcgg ttccagaaca tccccaaact ttccaagggtt 780
 tggttacact gtgagacgtt catctgcgac agtgagaagc tctcctgccc cgtgaactgt 840
 gacaaacgga agcgcagtgt acgtgaccag acaggaggtg tcctgggtgt ggagttgtcc 900
 ctgaggagca gggcattttc cggcctctgt gacttctcag atgttcttct tcacctcatc 960
 ctgatgctgg ggacctgggc tgtgtttagt 990

<210> 46
 <211> 329
 <212> PRT
 <213> Mus musculus

<400> 46